

FEDERAL BUREAU OF INVESTIGATION  
FOI/PA  
DELETED PAGE INFORMATION SHEET  
FOI/PA# 1347822-000

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January 24, 1974

EX-112

[Redacted]  
President  
Institute For Law And Social Research  
1125 15th Street, N.W.  
Suite 625  
Washington, D. C. 20005

Dear [Redacted]

Reference is made to your letter of January 14, 1974, advising that your organization is engaged in a project to assess the cost and benefits associated with the Comprehensive Data System Project funded by the Law Enforcement Assistance Administration. Further, your correspondence solicited the cooperation of the FBI in your project, and specifically asked that your staff be granted access to information about the cost at the national level of the Computerized Criminal History and Uniform Crime Reporting programs, and the designation of an FBI representative to serve as an ex-officio member of the project's Advisory Committee.

We will be pleased to make available to representatives of your organization any data which the FBI can provide relative to the cost, at the national level, of the two programs to which you referred. Special Agent [Redacted] of our National Crime Information Center staff has been designated as the FBI representative to serve as an ex-officio member of the Advisory Committee for your project.

Please give my very best regards to your brother

Sincerely yours,

C. M. Kelley

Clarence M. Kelley  
Director

Assoc. Dir. \_\_\_\_\_  
Asst. Dir.: \_\_\_\_\_  
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Legal Coun. \_\_\_\_\_  
Telephone Rm. \_\_\_\_\_  
Director Sec'y \_\_\_\_\_

1 - Administrative Division

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(Note continued page 2)

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Note (continued): See [redacted] to [redacted] memorandum dated 1/23/74, captioned "Request from Institute for Law and Social Research for FBI cooperation in cost and benefit study of LEAA's Comprehensive Data System (CDS) Project."



INSTITUTE FOR LAW AND SOCIAL RESEARCH  
125 15th St., N.W. Suite 625 Washington, D. C. 20005  
(202) 872-9380 Cable INSLAW, WASHDC

[Redacted] President

Assoc. Dir. \_\_\_\_\_  
Dir.: \_\_\_\_\_  
n. \_\_\_\_\_  
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Legal Coun. \_\_\_\_\_  
Telephone Rm. \_\_\_\_\_  
Director Sec'y \_\_\_\_\_

January 14, 1974

Mr. Clarence M. Kelley, Director  
Federal Bureau of Investigation  
9th Street & Pennsylvania Avenue, N.W.  
Washington, D. C. 20535

Dear Mr. Kelley:

The Institute for Law and Social Research is engaged in a project funded by the United States Law Enforcement Assistance Administration (LEAA) to assess the costs and benefits associated with a national-scope information systems project known as the Comprehensive Data System Project.

The Comprehensive Data System Project is, in effect, a package of five types of information system initiatives that each state is being asked to embark upon. Two of the five types are of direct interest to the Federal Bureau of Investigation: (1) a state-level Computerized Criminal History system, and (2) a state-level Uniform Crime Reporting system.

The intent of our project is to estimate the total development costs for the Comprehensive Data System Program on the Federal, state and local levels, and to develop and make available to the states a methodology for projecting the operating costs and benefits. The impetus for the project comes from a General Accounting Office study critical of the lack of information on this matter.

With assistance from [Redacted] of LEAA, members of my staff have had contact with [Redacted] chief of the NCIC Section. [Redacted] was very informative and helpful to us in our preliminary efforts. He has expressed interest in the purpose and scope of the project.

We would like to obtain the cooperation of the Federal Bureau of Investigation on this project, and specifically ask that you consider taking two actions with regard to this: (1) Authorizing access to information about CCH and UCR costs at the national level; and (2) designating a representative to serve as an ex-officio member of the project's Advisory Committee. We have also asked LEAA to appoint an ex-officio representative. Enclosed is a copy of the grant which funds the project. The projected duties and composition of the Advisory Committee are discussed on pages 3a and 24.

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Mr. Clarence M. Kelley

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January 14, 1974

The Institute for Law and Social Research is a private, non-profit corporation chartered in the District of Columbia. We have performed a considerable amount of contract work during the past several years with the United States Attorney's Office for the District of Columbia, and with LEAA. We would be happy to furnish you any further information that is desired about this project or about the Institute itself. I have had the personal pleasure of meeting you on several occasions, and I believe you know my brother [redacted] in St. Louis quite well.

*True*

Sincerely,

[redacted]

President

[redacted]

Enclosure

cc:

[redacted]

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UNITED STATES GOVERNMENT

# Memorandum

TO :

DATE: 1/23/74

FR :

SUBJECT:

REQUEST FROM INSTITUTE FOR LAW AND SOCIAL RESEARCH  
FOR FBI COOPERATION IN COST AND BENEFIT STUDY OF  
LEAA'S COMPREHENSIVE DATA SYSTEM (CDS) PROJECT

Legal Coun. \_\_\_\_\_  
Telephone Rm. \_\_\_\_\_  
Director Sec'y \_\_\_\_\_

By letter dated January 14, 1974, Mr. [redacted] President, Institute for Law and Social Research, Washington, D. C., advised that his organization was engaged in a project to assess the cost and benefits associated with the Comprehensive Data Systems Project funded by the Law Enforcement Assistance Administration (LEAA). Further, he solicited the cooperation of the FBI in the project, requesting that his staff be granted access to information about the cost at the national level of the Computerized Criminal History and Uniform Crime Reporting Programs, and the designation of an FBI representative to serve as an ex-officio member of the project's Advisory Committee.

By way of background, the General Accounting Office (GAO) made a review of the cost and potential benefits of a Criminal Data Exchange System, and in a report dated January 16, 1973, they made two recommendations to the Attorney General, one of which is pertinent here. That:

Either the FBI or LEAA determine the total cost of developing and operating the criminal history exchange system so that the participants can decide whether they are able, or willing, to meet the systems financial requirements.

The Department of Justice responded to the GAO report, indicating agreement with GAO's recommendations and stating that the Department was taking action to accomplish those objectives.

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Memo to

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On November 21, 1973, the Institute for Law and Social Research received an award of \$203,009 from LEAA to conduct a survey of LEAA's Comprehensive Data System (CDS) Project, to establish the potential costs and benefits of the Project. LEAA has earmarked approximately \$20,000,000 in discretionary grant funds for the development of CDS, which it describes as a project to fund the development of an offender history exchange system (Computerized Criminal History (CCH)) for operational use, together with a system which will provide wide-range statistics and information for criminal justice planning and decisionmaking (Offender-Based Transaction Statistics (OBTS)).

Our Uniform Crime Reporting (UCR) Program represents an on-going system for the collection, processing, analysis and reporting of national crime statistics. Accordingly, the cost and benefits of UCR would provide some basis for the similar evaluation of OBTS and other related programs of LEAA.

By letter of July 16, 1973, directed to the Comptroller General of the United States, it was pointed out that the FBI absorbs the cost for the central computer in the NCIC System and for operating that facility and the network it serves. Further, that the CCH File is an integral part of the NCIC System and any separation of CCH cost from that for the over-all operation of the NCIC would necessarily be somewhat arbitrary, but that the proportional cost of CCH could be estimated subject to a number of limitations.

While the cost at the national level of the CCH and UCR Programs are not readily available, they could be compiled subject to the limitations which would be required as indicated above. Accordingly, it is believed that we should agree to make the pertinent cost information available upon request, and should further cooperate by complying with the request for the designation of an FBI representative to act as an ex-officio member of the project's Advisory Committee.

Memo to

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RECOMMENDATION:

That the attached letter be sent to  indicating that we will make pertinent cost data available, and have designated a Special Agent to the project in the limited capacity requested.

Enclosure



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U.S. DEPARTMENT OF JUSTICE  
LAW ENFORCEMENT ASSISTANCE  
ADMINISTRATION

APPLICATION FOR GRANT  
DISCRETIONARY FUNDS  
PAGE 1

Application is hereby made for a grant under Sections 306  
and/or 456 of the Omnibus Crime Control and Safe Streets Act  
of 1968 (P. L. 90-351), as amended in the amount and for the  
purposes set forth in this application.

(LEAVE BLANK FOR OFFICIAL USE ONLY)

Application Number  
3307-11-55-14

Date Received

Region Assigned

1. Short Title of Project: (Do not exceed one typed line)

COMPREHENSIVE DATA SYSTEM COST STUDY

2. Type of Application: (Check One)



Original



Revision



Continuation of Grant No. \_\_\_\_\_

3. Discretionary Program Under Which Application is Made:  
TECHNICAL ASSISTANCE

4. Project Duration:

Total Length 12 months

5. LEAA Support Sought

\$213,159-1203,000

6. Applicant or Implementing Agency or Governmental Unit:  
(Name, address, and telephone)

INSTITUTE FOR LAW AND SOCIAL RESEARCH  
1025 FIFTEENTH STREET, N. W.  
WASHINGTON, D. C. 20005  
TEL. NO. 202-293-9240

7. Project Director (Name, title, address, and telephone)

PRESIDENT  
INSTITUTE FOR LAW AND SOCIAL RESEARCH  
1025 FIFTEENTH STREET, N. W.  
WASHINGTON, D. C. 20005 202-293-9240

8. Financial Officer (Name, title, address, and telephone)

TREASURER  
INSTITUTE FOR LAW AND SOCIAL RESEARCH  
1025 FIFTEENTH STREET, N. W.  
WASHINGTON, D. C. 20005 202-293-9240

9. Official Authorized to Sign Application (Name, title,  
address, and telephone)

PRESIDENT  
INSTITUTE FOR LAW AND SOCIAL RESEARCH  
1025 FIFTEENTH STREET, N. W.  
WASHINGTON, D. C. 20005 202-293-9240

10. Project Summary - - Summarize, in approximately 200 words, the most important parts of the statement of project plan presented in application item 21 (page 7), briefly covering project goals and program methods, impact, scope, and evaluation.

The Law Enforcement Assistance Administration (LEAA) has earmarked approximately \$20 million in discretionary grant funds for development of the Comprehensive Data System (CDS) project. The General Accounting Office (GAO) has reported that both the federal government and state participants lack knowledge of potential costs and benefits in the project and suggested that states be given such knowledge so they can make more intelligent decisions and plans.

The Institute for Law and Social Research, a non-profit corporation chartered in the District of Columbia, will undertake to provide cost and benefit analysis methodology aimed toward satisfaction of the GAO recommendation and, in addition, will project the total developmental and operating costs for the 26 states which have submitted CDS plans, and for the remaining states and the District of Columbia; and will provide technical assistance to the states on the use of the new cost and benefit technique.

The project will proceed through two phases: During phase one, the basic cost analysis will be developed and tested in two states and then applied in two additional states. During phase two, a methodology will be developed and tested analyzing cost and benefit relationships.

The project is expected to result in state-level acceptance and use of methods of cost and benefit analysis of the comprehensive data system and related criminal justice information systems and to lead to better planning and resource allocation decisions in the criminal justice field. The project will be evaluated on the basis of the understanding and acceptance of the cost and benefit projection technique in the participating states.

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ENCLOSURE

115930-2

U.S. DEPARTMENT OF JUSTICE  
LAW ENFORCEMENT ASSISTANCE  
ADMINISTRATION

National Criminal Justice Information  
and Statistics Service  
PROJECT SUMMARY

GRANT # 74-SS-99-3302

INSTRUCTIONS: This project is supported under Title I of the Omnibus Crime Control and Safe Streets Act of 1968, as amended. For further information, please contact the below named member of the LEAA Staff, or project director. Please identify by grant number.

1. STAFF CONTACT

[redacted] Systems Specialist  
Systems Development Division, NCJISS  
202/292-1791

2. PROJECT DIRECTOR

[redacted] b6  
President, Institute for Law and Social b7C  
Research, 1025 15th St. N.W. Washington, D.C.  
20005

3. TITLE OF PROJECT

Comprehensive Data System Cost Study

4. NAME & ADDRESS OF GRANTEE

Institute for Law and Social Research  
1025 Fifteenth Street, N.W.  
Washington, D. C. 20005  
202/293-9240

5. NAME & ADDRESS OF SUBGRANTEE

None

6. AMOUNT OF AWARD

\$203,009

7. PERIOD OF AWARD

November 21, 1973 to November 20, 1974

8. TOTAL PROJECT AMT.

\$203,009

9. TOTAL PROJECT PERIOD

12 months

10. DATE OF AWARD

November 21, 1973

11. SUMMARY DESCRIPTION OF PROJECT

The Law Enforcement Assistance Administration (LEAA) has earmarked approximately \$20 million in discretionary grant funds for development of the Comprehensive Data System (CDS) project. The General Accounting Office (GAO) has reported that both the federal government and state participants lack knowledge of potential costs and benefits in the project and suggested that states be given such knowledge so they can make more intelligent decisions and plans.

The Institute for Law and Social Research, a non-profit corporation chartered in the District of Columbia, will undertake to provide cost and benefit analysis methodology aimed toward satisfaction of the GAO recommendation and, in addition, will project the total developmental and operating costs for the 26 states which have submitted CDS plans and for the remaining states and the District of Columbia; and will provide technical assistance to the states on the use of the new cost and benefit technique.

The project will proceed through two phases: During phase one, the basic cost analysis will be developed and tested in two states and then applied in two additional states. During phase two, a methodology will be developed and tested analyzing cost and benefit relationships.

The project is expected to result in state-level acceptance and use of methods of cost and benefit analysis of the comprehensive data system and related criminal justice information systems and to lead to better planning and resource allocation decisions in the criminal justice field. The project will be evaluated on the basis of the understanding and acceptance of the cost and benefit projection technique in the participating states. This project will require \$203,009.00 of Systems Development funds.



## 12. BUDGET NARRATIVE

Begin below and add as many continuation pages (3a, 3b, etc.) as may be necessary to relate the items budgeted to project activities, and complete the required justification and explanation of the project budget.

### A. PERSONNEL

Principal Investigator. The President of the Institute, [redacted] will provide overall direction of the project. He will devote approximately one-sixth of his time to the project over its 12-month duration.

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Project Director. This person, to be recruited and hired by the Institute, will have primary technical responsibility for the project. He will devote to the project 100% of his time. He will participate in the survey visits and data gathering and analysis. He will coordinate the work of the technical consultants and the Advisory Committee, and schedule and supervise all of the work on the project. He will also produce the interim and final reports and documentation.

Cost Analyst. This person, to be recruited and hired by the Institute, will devote to the project 100% of his time. He will conduct survey visits and assist in the development of the cost and benefit methodologies.

Computer Systems Analyst. The Vice President of the Institute in charge of computer systems, [redacted] will devote to the project approximately one-fourth of his time over the 12-month duration. He will provide technical support to the project on information systems problems.

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Management Analyst. The Director of Management Systems for the Institute, [redacted] will devote approximately one-sixth of his time to the project. He will assist in the design of the data collection instruments, in the review of documentation, and in management reviews carried out during site visits.

Training Analyst. [redacted] who is a training analyst on the Institute's staff, will devote approximately one-fourth of her time to this project. She will help design the briefing materials to be used for promulgating the cost and benefit methodology to the states and will assist in the design and administration of the seminar to be conducted by the Institute.

Editor. This person will devote approximately four weeks to the project. He will edit all of the documentation and reports produced under the project.

Secretary. This person will devote 100% of her time to the project. He will type all correspondence and reports, coordinate travel arrangements and survey visits, and arrange for printing and reproduction.

### B. PROFESSIONAL SERVICES

#### 1. Individual Consultants

Cost Benefit Consultant. [redacted] who has had extensive experience in criminal justice information systems and in cost analysis, will be the principal technical consultant on this project.

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B. PROFESSIONAL SERVICES (Continued)

Other Technical Consultants. As required, persons with specialized knowledge in criminal justice information systems, communications, or cost and benefit analysis will be used on a short term basis to elucidate certain problems encountered by the project staff.

Advisory Committee. This committee will review the project plan, data collection instrument, cost analysis and benefit analysis methodologies, and briefing materials. It is planned that the following types of persons will serve on this committee:

- A state budgeting officer.
- An economist specializing in government cost studies, such as a Brookings Institute specialist.
- An LEAA Headquarters Representative.
- A State Planning Agency Head.
- An LEAA Regional Office representative.
- The director of a state criminal justice information system operation.
- The head of a state law enforcement agency.

C. TRAVEL

Pilot State Surveys of Costs

Approximately two project staff members will survey each of the four pilot states and spend ten days each.

Pilot State Surveys of Benefits

Approximately two project staff members will survey each of the four pilot states and spend ten days each.

Consultant Travel

Approximately eight trips will be made by the cost-benefit consultant, [redacted] to the pilot states. In addition, [redacted] and other technical consultants will make a total of about 15 roundtrip visits to Washington, D. C. for project discussions.

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Advisory Committee

This committee will meet in Washington, D. C. at the Institute's conference facilities four times during the duration of the project.



C. TRAVEL (Continued)

Methodology Seminar

Six states will each send one representative each to Washington, D. C. for a two-day seminar on the cost and benefit methodology developed under this grant.

D. EQUIPMENT

Furniture will be purchased under the grant for three staff members who will be recruited under the grant and who will be devoted 100% of their time to the grant. These three are the project director, the cost analyst and the secretary. Furniture for each of these positions is estimated to cost \$1,500.00.

Equipment to be purchased under the grant includes a calculating machine for use in the cost analysis and in the analyses of cost and benefit relationships; a typewriter; and two pieces of portable dictation equipment which project staff members will use during their survey visits to the pilot states.

E. SUPPLIES AND OTHER OPERATING EXPENSES

The principal printing costs will be those associated with the printing of written documentation and briefing materials on the cost and benefit methodology.

Postage for correspondence with the pilot states is estimated at \$100.00.

Telephone costs are for long distance calls between project staff members and to the pilot states, technical consultants, cost and benefit consultant, Advisory Committee, and six seminar states, and their homes and the Institute's office in Washington while staff members are on visits to the pilot states. The telephone costs are estimated at \$2,500.00.

The indirect cost rate of 43.2% has been submitted to the LEAA Audit Division and ~~is pending approval.~~

has been approved. See Financial Review.



U.S. DEPARTMENT OF JUSTICE  
LAW ENFORCEMENT ASSISTANCE  
ADMINISTRATION

APPLICATION FOR GRANT  
DISCRETIONARY FUNDS  
PAGE 6

STANDARD GRANT CONDITIONS - (Cont'd)

- (18.) Release of Information. Pursuant to Section 521 of the Act, as amended all records, papers and other documents kept by recipients of LEAA funds, including State Planning Agencies and their subgrantees and contractors, relating to the receipt and disposition of such funds, are required to be made available to the Administration. These records and other documents submitted to LEAA and State Planning Agencies pursuant to other provisions of the Act, including comprehensive State plans and applications for funds, are required to be made available by LEAA under the terms and conditions of the Federal Freedom of Information Act (5 U.S.C. 552). State Planning Agencies must follow applicable LEAA Guidelines on release of information and State Planning Agency procedures designed to facilitate local government participation.
- (19.) Negative Declaration. Applicant hereby declares that no significant environmental impact, as defined by the National Environmental Policy Act of 1969 and LEAA Guidelines, may result from implementation of this program. Further, the applicant hereby declares that implementation of this program will have no adverse effect on properties listed in the National Register of Historic Places. Where this Declaration cannot be made, the applicant must attach an Environmental Impact Analysis and proceed in accordance with OMB Circular A-95 clearance procedures and appropriate LEAA Guidelines.
- (20.) Assurance of Compliance with Civil Rights Laws. The applicant hereby agrees that it will comply with Title VI of the Civil Rights Act of 1964 and all requirements imposed by or pursuant to regulations of the Department of Justice (28 C.F.R. Part 42, subpart C) issued pursuant to that title, to the end that no person shall, on the grounds of race, color, creed, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity which the applicant receives Federal financial assistance from the Department of Justice. The grantee further will comply with and insure compliance by its subgrantees and contractors with Department of Justice equal employment opportunity regulations in federally assisted programs (28 C.F.R. Part 42, subpart D) to the end that employment discrimination in such programs on the grounds of race, color, creed, sex or national origin, shall be eliminated. The grantee recognizes the right of the United States to seek judicial enforcement of the foregoing covenants against discrimination and will include a similar covenant assuring the right of the United States to seek judicial enforcement in its subgrants or contracts.
- (21.) Part E Assurances. Where Part E funding is requested, applicant agrees that all Part E assurances, areas of emphasis, and special requirements as set forth in Discretionary Grant Guide pp. 5 & 6 will be complied with.
- (22.) Use of Airplanes and Helicopters. Airplanes and helicopters purchased in whole or in part with grant funds must be used for the purposes stated in the application and may not be used for non-law enforcement purposes by State and local officials.

17. Date: 8/13/73	18. Total Pages in Application: 38	19. State Planning Agency Certification and Approval Effected. <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
20. Signature of Authorized Official (Item 9 of Application): <div style="border: 1px solid black; width: 150px; height: 20px; display: inline-block;"></div> President		

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U. S. DEPARTMENT OF JUSTICE  
LAW ENFORCEMENT ASSISTANCE  
ADMINISTRATION

APPLICATION FOR GRANT  
DISCRETIONARY FUNDS  
PAGE 7

21. PROJECT PLAN AND SUPPORTING DATA

Please state clearly and in detail, within ten pages if possible, the aims of the project, precisely what will be done, who will be involved and what is expected to result. Use the following major headings:

- P. I. Goals.
- P. II. Impact and Results
- P. III. Methods and Timetable
- P. IV. Evaluation
- P. V. Resources

Number subsequent pages consecutively, i.e., Application Page 8, Application Page 9, etc. See page 7 for further guidance.

I. GOALS

A. Background

The Omnibus Crime Control and Safe Streets Act of 1968 provided funding and national impetus to the development of information systems in the criminal justice field. Initially, most of the funding was concentrated on police information systems, but eventually capabilities were developed in the prosecution, court and correctional fields too.

In 1969, LEAA conducted a review of state criminal justice information systems capabilities and determined the need for a uniform format for criminal history records in order to facilitate both the exchange of such records among the states and the compilation of comparable criminal statistical data.

In the same year, LEAA launched Project SEARCH (System for Electronic Analysis and Retrieval of Criminal Histories) with the purpose of developing a prototype system for the interstate exchange of criminal history data, and enhancing the criminal history capabilities at the state level. A model system involving four states was implemented. The model system was linked with the Federal Bureau of Investigation's (FBI) National Crime Information Center (NCIC) in Washington, D. C.

In keeping with the SEARCH design, NCIC maintains a computer-based index in Washington, D. C. of criminal history records kept in the participating states, and also maintains computer to computer communications linkages with the states. A state can search the NCIC index for the name of a person with a criminal record, obtain a brief resume of the record from the index, and then switch to the computer data base of the state where the record is kept to obtain more details. This criminal history capability of the NCIC is commonly referred to as CCH (Computerized Criminal History).

Parallel with these efforts to develop a CCH capability, LEAA launched a project to develop longitudinal criminal statistical capabilities at the state level and dubbed the project OBTS (Offender Based Transaction Statistics). There is an area of overlap between CCH and OBTS since CCH data is developed in the course of the longitudinal passage of an offender through the criminal justice process.

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In May 1972 LEAA combined both the CCH and OBTS projects into the Comprehensive Data System (CDS) project.

In addition to fostering the development of state level CCH and OBTS capabilities, the CDS has the following related purposes:

- . To develop state-level management and administrative statistics systems which relate financial and personnel resources to criminal justice missions.
- . To enhance the quality and comprehensiveness of state level reporting under the Uniform Crime Report (UCR) program.
- . To develop criminal justice data centers at the state level to analyze the criminal statistics data accumulated in the CCH, OBTS, Management and Administrative system, and UCR reports.
- . To provide, at the state level, a capability for rendering technical assistance in furtherance of the other CDS objectives.

LEAA has earmarked approximately \$20 million in discretionary funds for the CDS project. To date, 26 states have applied for participation in the CDS program by submitting the required plans. These plans include projections of developmental and operating costs for the CDS as well as estimates of potential benefits.

#### B. GAO Report

In January 1973, the General Accounting Office (GAO) issued a report on the CDS project entitled "Development of a Nationwide Criminal Data Exchange System--Need to Determine Cost and Improve Reporting," in which the following recommendation was made:

"Either the FBI or LEAA [should] determine the total cost of developing and operating the criminal history exchange system so that the participants can decide whether they are able or willing to meet the system's financial requirements."

The GAO report emphasized that the cost to develop and operate the criminal history exchange system has not been determined and the operational benefits of such a system have not been estimated. GAO further stated that "No one has determined how much a fully operational system will cost." While acknowledging the difficulty of performing an in-depth cost-benefit analysis, GAO recommended that LEAA develop a "white-paper" to serve as the first phase of such an analysis. Such a document, it was theorized, would enable the states and federal government agencies to project costs for development and operation and estimate potential benefits.

### C. Statement of the Problem

In a paper entitled, "Problems Encountered in Developing a State-Level CCH-OBTS System and Interfacing it with the NCIC-CCH System,"<sup>1</sup> [redacted] Commissioner of the Florida Department of Law Enforcement, makes the following statement:

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"When a state converts an existing criminal history program to the NCIC-CCH system or converts from NCIC-CCH to OBTS, additional manpower resources are needed. Considerable thought should be given to the additional workload burden this conversion effort creates before a state commits itself to such a venture."

On the basis of Florida's experience with conversion from its own system to NCIC-CCH, an original staff of eighty had to be increased to 165 to handle the additional workload. Conversion to OBTS will necessitate another dramatic increase, obviously not only in staff resources but in other resources as well. The need for training, forms analysis and design, and data processing resources can also be expected to increase. Commissioner [redacted] concluded his paper by emphasizing two points which directly bear on this project:

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"The anticipated benefits from CCH-OBTS in providing documentation on the effectiveness of the criminal justice system are well worth the effort necessary for its development, implementation and operation..."

<sup>1</sup>Paper given at the International Symposium on Criminal Justice Information and Statistics Systems, (sponsored by Project SEARCH and LEAA, October 3-5, 1972 in New Orleans..

"However, these systems require a major expenditure of time, resources, and money while providing little visible signs of benefit in the short run. Criminal justice managers will be placed in the difficult position of going before legislatures to justify that CCH-OBTS returns are, in fact, worth the expenditure. The cost-utility relationship between the current and proposed systems will be given particular attention for we are in an era of intense competition with other governmental services for the tax dollar."

#### D. Objectives

The overall goal of this project is to estimate total costs for the development and operation of the CDS program at the federal and state levels, and to devise, test, and document for promulgation to the states a technique for projecting developmental and operational costs and benefits for state level criminal justice information systems.

The five specific objectives under this goal are as follows:

1. Develop, test and document for use by the states a methodology for recording and/or estimating costs of developing and operating criminal justice information systems at the state level (e.g., NCIC-CCH, OBTS, etc.).
2. Estimate the total costs of developing and operating the Comprehensive Data System in four states from among the twenty-six states currently scheduled to implement CDS.
3. Extrapolate estimated costs for the remaining 48 states and the District of Columbia based on data assembled on the four pilot states.
4. Develop, test and document for promulgation to the states a methodology for estimating and recording benefits from the implementation of state-level criminal justice information systems.

5. Provide technical assistance to states in the form of training material and on-site visits, and seminars and briefings conducted at the Institute for Law and Social Research's conference facilities in Washington, D. C. on the methodology for projecting and/or recording costs and benefits for state-level criminal justice information systems.

## II. IMPACT AND RESULTS

### A. Scope

The focus of the project will be on the OBTS-CCH system with a lesser emphasis on the other elements of the CDS project. However, because of the close interdependency between OBTS-CCH and certain supportive systems such as Want/Warrant, intrastate NCIC, and message switching for NCIC Washington, the project staff will also encompass to the extent necessary, a cost and benefit analysis of the supportive systems.

Costs and benefits will be distributed among the interdependent systems. Likewise, costs and benefits will be shown by level of government.

The local operating agencies are the source of data whether the data are statistically oriented (OBTS-CCH) or operationally oriented (Want/Warrant, NCIC-CCH). The costs of capturing and reporting information at the local level must therefore be analyzed. Benefits for the local agencies must also be evaluated to determine the utility of the information for each criminal justice operating agency.

Additional costs can be shared by the regional and state level. Computer processing and hardware costs, and data preparation and retrieval costs are examples.

B. Results

The results from the cost and benefit analysis will be:

1. Increased capability at the state level for assessing costs of CJIS projects, especially CDS.
2. Increased capability at the federal level for assessing financial implications of the total CDS program.
3. Improved capability at the state level for assigning systems development priorities in order to assure necessary systems within resource constraints.
4. Improved capability at the state level for recognizing benefits derived from implementing CJIS systems.
5. An improved capability within LEAA for comparing costs and results. This will affect funding decisions and performance evaluations on a national level. The payoff could be significant:

"To study the operations of one city alone at one point in time provides little basis for saying whether citizens are getting their money's worth. But when, as this study suggests, some cities outperform others of comparative size by as much as 1,000 percent, a clearer picture emerges. Such comparisons indicate the potential of looking more closely at local government productivity. If the performance of all localities could be raised closer to the level of the top performances, the implications for service improvements and cost savings nationwide would be staggering..."<sup>2</sup>

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<sup>2</sup>"The Challenge of Productivity Diversity", National Commission on Productivity, the Urban Institute and the International City Management Association, June 1972, Washington, D. C. (Note: although this emphasizes municipal levels, it is nevertheless appropriate for other levels of government).



B. The following existing staff members of the Institute will also be devoted full or part time to the project:

- . President - will serve as Principal Investigator, part time.
- . Director of Management Systems - part time management support.
- . Director of Computer Systems - part time management support.
- . Training Analyst - part time assistance in developing training materials and planning seminars.
- . Secretary - full time
- . Editor - part time

C. Once the project staff has been assembled, a revised work plan will be filed with the project monitor indicating target dates for the completion of each task and task refinements and/or amendments.

Task 2 - Choose Four States for Pilot Test of Cost Methodology

The criteria for selection will include:

- . Advanced state of CJIS implementation.
- . Good staff capability.
- . Representative of states currently participating in the CDS program.
- . Willingness to participate.

Task 3 - Prepare Cost Analysis Framework

This will include the following:

- (1) List systems to be studied, showing scope, status (operational or under development), subsystems, name of systems manager and sources of documentary information.
- (2) Obtain copy of budget, salary schedules, grant applications, CDS plan and other pertinent documentation. Review these and use as basis for structuring cost data collection.

- (3) Conduct a literature search for previous cost and benefit studies of information systems (this search will include GAO, DOD, HUD, and LEAA as well as published reports).
- (4) Show funding sources--federal, state, regional and local.
- (5) Structure development cost estimates categorized by labor, computer, facilities/equipment, and materials and further by planning and management, analysis and design, development, testing, and implementation.
- (6) Structure maintenance and operating cost estimates and compare CDS and related systems with pre-CDS systems costs. Also show fixed and variable costs for labor, computer time, facilities/equipment and materials.
- (7) Develop guidelines for projecting costs of systems not yet operational.
- (8) Define units for workload and output measures and methods of allocating costs to systems.

Task 4 - Develop Data Collection Instrument

This instrument will be structured to accomodate the following purposes:

- (1) To break down comparable manual and automated systems into component processes.
- (2) To provide for recording types of personnel, manhours, and work units produced.
- (3) To provide for cost segregations and aggregations.
- (4) To assess the availability of cost accounting records and the status of systems development.
- (5) To develop benefit data through structured interviews.

Task 5 - Select and Define Responsibility of Advisory Committee Which Will Review the Project, Particular the Cost and Benefit Methodology

The type of representatives on the advisory committee will include:

- (1) State budgeting officer;
- (2) Economist specializing in Government cost studies, such as Brookings Institute specialist;
- (3) LEAA Headquarters Representative;
- (4) LEAA regional systems staff representative;
- (5) State Planning Agency representative;
- (6) Head of State Law Enforcement agency experienced in making requests and justifications of budgets before state legislatures; and
- (7) Head of state criminal justice information system.

The responsibilities of the advisory committee will include the following:

- (1) Review and advise on project plan.
- (2) Review and advise on instruments for data gathering.
- (3) Review and advise on cost and benefit methodology.
- (4) Evaluate effectiveness of project in meeting goals and objectives.

Task 6 - Conduct Cost Analysis Site Surveys in Two States

The site surveys will consist of the following:

- (1) A review of budgets, CDS plans, and other relevant available reference material and cost accounting records.

- (2) Interviews of systems developers, managers and users in conjunction with previously collected reference material and data collection instruments.
- (3) A determination of methods for allocating computer operating costs to different systems and modules. A rational and equitable allocation may be difficult to arrive at in an on-line multiprocessing communications-based environment such as that found in many state CJIS systems. Cost allocations may require the use of special software packages, such as PACE, to determine the proportion of computer resources utilized by the various systems. If such software is not available, a reasonable, less precise method will be developed.

Included in computer system operating costs will be programming maintenance, operators, supervisory personnel, control devices and communication lines. The number of hours during which the computer system operates will be considered in arriving at hourly rates to be applied in computing costs. Costs for forms design and completion of forms will be estimated in regard to labor, materials and operating costs.

- (4) The documentation of development costs for each system under development. These costs will be segregated by federal, state, regional and local levels as shown in the following matrix:

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	<u>COSTS TO DATE</u>			<u>ESTIMATES TO COMPLETE</u>		<u>TOTAL</u>	
	<u>Hourly Rate</u>	<u>Hours</u>	<u>Total</u>	<u>Hours</u>	<u>Total</u>	<u>Hours</u>	<u>Total</u>
<u>Category</u>							
<u>LABOR</u>							
Analyst							
Programmer							
Operator							
Administrative							
Clerical							
Fringe benefits							
TOTAL							
<u>FACILITIES AND EQUIPMENT</u>							
Computer and peripheral							
Terminals							
Facilities							
TOTAL							
<u>CONTRACTS</u>							
TOTAL							

- (5) The documentation of operating costs for each system. (Some systems are operational, such as Want/Warrant and NCIC, while others are under development, such as OBTS-CCH. Systems which are operational will be costed based on experience, while systems not yet operational will need to be costed on estimates and projections. Comparisons will be drawn between pre-CJIS and CJIS systems to be used in justifying involvement as shown in the following matrix:

	PRE-CCH			CCH	
	<u>Hourly Rate</u>	<u>Hours</u>	<u>Costs</u>	<u>Hours</u>	<u>Costs</u>
<u>LABOR</u>					
Supervisory					
Detective					
Patrolman					
Clerical					
Fringe Benefits					
<u>FACILITIES AND EQUIPMENT</u>					
Computer and peripheral					
Terminals					
Facilities					
<u>MATERIALS</u>					
TOTALS					

- (6) The documentation of work output measures for each system and component process.

Task 7 - Prepare Cost Methodology Report For Two States That  
Were Surveyed

Included in this draft will be the following:

- . Data collection instrument and accompanying instructions.
- . Methodology used to obtain cost data.
- . Review of success of obtaining cost data.
- . Documentation of Cost Analysis Framework from Task 3.

Task 8 - Extend Cost Analysis Site Surveys to 3rd and 4th States  
Using Cost Methodology in Task 7

On the basis of the work done in Task 6 and refined in Task 7, a second series of site surveys will be conducted in two states. Essentially, the same procedure will be undertaken in these sites as was undertaken in sites 1 and 2.

Task 9 - Further Refine Methodology Based Upon Experience  
in 3rd and 4th States

Work done in Task 8 should lead to further refinements to the work undertaken in Task 7. Emphasis will be placed upon further refinement of the cost analysis framework.

Task 10- Prepare Preliminary Report on Cost Analysis in Each Test State

This report will include the following:

- (1) Developmental costs by system.
- (2) Operating costs by system for pre-CJIS and CJIS, including work output measures.
- (3) Computations of fixed and variable costs.
- (4) Cost displacement calculations using concept of opportunity costs (allocating costs instead of presuming budgetary increases or decreases).
- (5) Cost avoidance estimates.

Task 11- Document CDS Costing Methodology for Use by Remaining States

Included in this documentation will be the following:

- . Data instrument
- . Explanation of methodology
- . Problems to be avoided
- . Audio/visual and written briefing materials

Task 12- Estimate Total Costs for CDS Showing  
Federal, State and Regional Costs

Total costs for the participating states will be extrapolated from the cost data acquired on the four pilot states.

Task 13- Document Benefits of CDS and Related Systems When Compared  
to Pre-CDS Systems

Compile the data collected during the documentation search (Task 3) and isolate the benefits for CDS. Compare this data with pre-CDS in regards to cost efficiency, savings and quality of performance. This will provide the foundation for succeeding tasks related to benefit projections.

Task 14- Develop Cost and Benefit Methodology for CDS with Emphasis  
on OBTS-CCH

During the literature search in Task 3, documentation on various approaches to viewing benefits will be examined. The following excerpts from a publication on the evaluation of social programs suggests several methods of evaluating benefits:<sup>2</sup>

- (1) Effort: "The criterion of success is the quantity and quality of activity that takes place; it is an assessment of input (workload) without regard to output."
- (2) Effectiveness: "This is a performance criterion measuring the results of effort rather than the effort itself (in terms of meeting objectives); it requires a clear statement of objectives."
- (3) Impact: "The criterion of success is the degree to which effective performance is adequate to the total amount of need."

<sup>2</sup>Suchman, Edward A., Evaluation Research, New York: Russell Sage Foundation, 1967.



- (4) Cost Effectiveness: "This... is concerned with evaluation of alternative methods in terms of costs; it represents a ratio between effort and impact."
- (5) Benefit: This places a dollar value on the system improvements and impact.

Besides Task 3, benefits will also be examined in the course of Tasks 4, 5, 6 and 8.

Benefits will be considered on two levels: Benefits will be assessed on the comprehensive data system as a single national program; secondly, benefits will be calculated within states. This analysis will provide additional information and insight about the comparative aspects of the individual state programs.

It is expected that heavy emphasis will be placed upon developing short and long-term indications of effectiveness.

In developing the cost and benefit methodology, four aspects of costs and benefits will be addressed. These are summarized as follows:

(1) Cost Displacement

Are the operating costs of CDS less than pre-existent system and can the CDS pay for itself in terms of cost savings?

(2) Cost Avoidance

E.g., will computerizing criminal histories make it possible to avoid hiring additional people to handle projected increases in workload?

(3) Cost Feasibility

If CDS system is more expensive than pre-existent system, can state reallocate existing resources to fund CDS?

(4) Economic Justification for CDS

Is additional cost justifiable in terms of improved services and benefits for public?

Task 15- Conduct Site Surveys to Several States  
to Refine, Confirm, Quantify, and Measure Benefits from State's  
CDS and Related Criminal Justice Systems

This task contemplates field testing the cost and benefit methodology in several states for purposes of refinement and confirmation of the methodology.

Task 16- Document Methodology and Develop Training Seminar on  
Implementation of Methodology

This will include the development of a 45 minute pre-recorded sound and slide presentation on the methodology for cost and benefit projections of CDS and related systems, and a seminar at the Institute's conference facilities in Washington to train representatives of approximately six states in the methodology.

Task 17- Provide Technical Assistance to CDS States on Use of Cost  
And Benefit Methodology

This will consist of site visits to participating states to assist them in the use of the methodology, as directed by the Project Monitor and within funds as allocated.

Task 18- Produce Expected Final Outputs of Study to Include the  
Following Documentation

The final outputs of this grant will include the following documentation:

- (1) Cost summary for four (4) pilot states
- (2) Estimated costs for CDS program extrapolated from four (4) pilot states
- (3) Cost methodology
- (4) Benefit methodology
- (5) Final Report
- (6) Briefing package (sound and slide presentation and accompanying written documentation).
- (7) Additional areas of need statement.

#### IV. EVALUATION

The advisory committee will provide on-going evaluation of cost methodology through its regular meetings and final evaluation will be through an assessment of the level of understanding and acceptance of the cost and benefit technique with the participating states.

##### A. Advisory Committee

The advisory committee will review the cost analysis framework, data collection instrument, and cost/benefit methodology. The group will review and advise on cost methodology and benefit reports on site states. The group will assist in a final evaluation of the project.

##### B. Level of Acceptance

The effectiveness of the project will be measured through the design and implementation of a training evaluation system used during the training seminar to be held at the Institute for Law and Social Research. Evaluation forms will be designed for the participants use as they proceed through the cost and benefit training. Evaluations will also be obtained from the advisory group and our own project team. After the analysis of this data, an evaluation report will be developed indicating the various strengths and weaknesses of the cost and benefit methodologies. The recommendations for improvement of the training seminars will be implemented in the subsequent technical assistance to the remaining states.

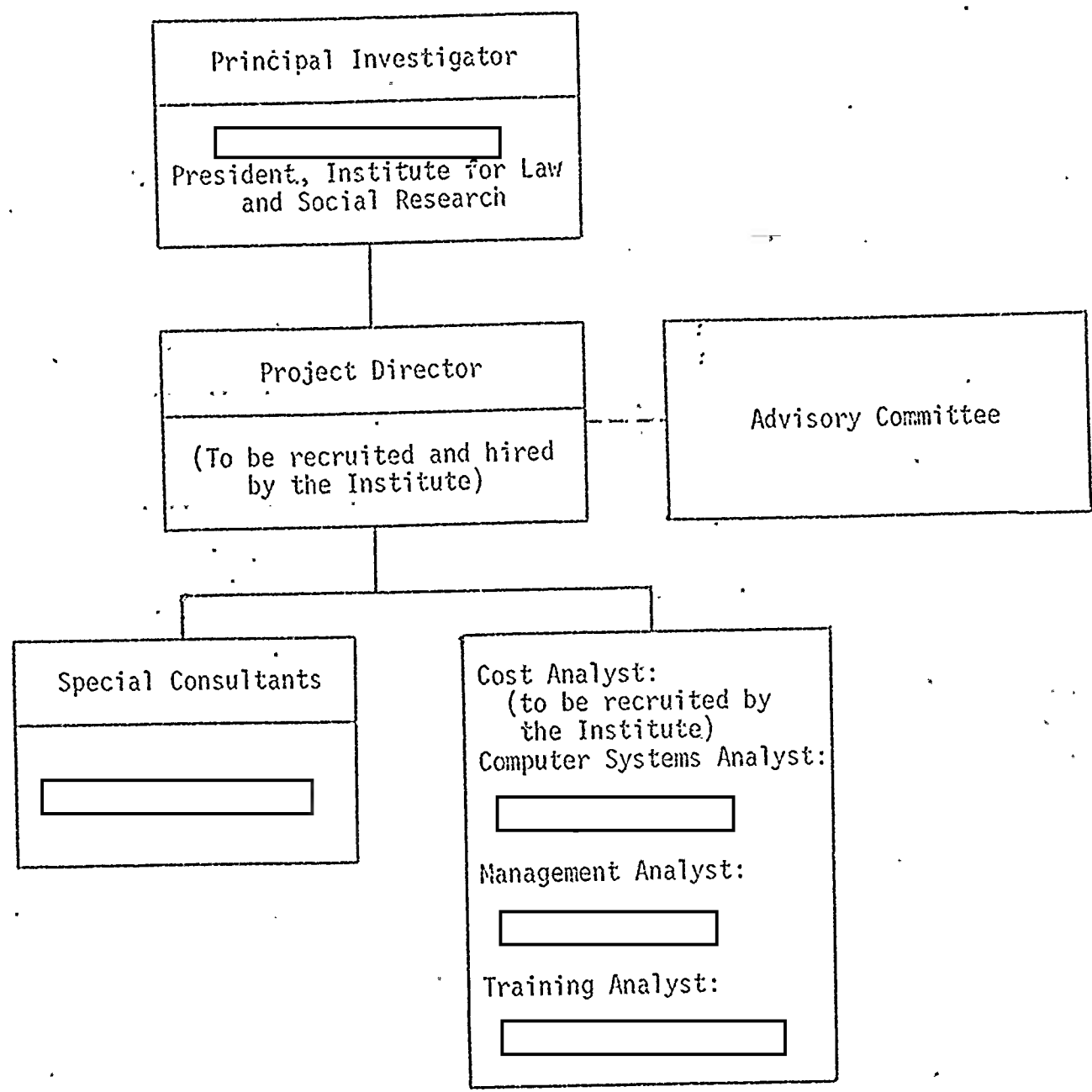
#### V. RESOURCES

The Institute for Law and Social Research is a non-profit, tax exempt corporation chartered in the District of Columbia. The Institute is engaged in in management and system studies and social-legal research for public law agencies in Washington, D. C. and other cities.

The following is a chart illustrating the project organization and management and the reporting relationships of the project staff members. Following the chart are resumes of the Institute's staff members who will work on this project, and descriptions of the requisite qualifications for the project leader and the cost analyst who will be recruited and hired by the Institute for this project. Also included is a resume for [REDACTED] who will be the cost benefit consultant for this project.

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PROJECT ORGANIZATION



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[redacted] is President of the Institute for Law and Social Research.

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[redacted] has extensive experience in the analysis, design and implementation of information systems, in conducting organizational and management studies, and in prosecution and court management.

[redacted] was the project manager on the design, development and implementation of PROMIS (Prosecutor's Management Information System) in Washington, D. C. PROMIS has evoked broad national interest and support as an important and useful tool in local criminal justice administration.

[redacted] supervised a team of computer systems analysts, programmers, management analysts, attorneys, and training analysts in the U. S. Attorney's Office in the wholesale modernizing and re-vamping of operating procedures and strategies for the local prosecution division, following the introduction of the PROMIS system in that office. Among the tasks [redacted] supervised were the development of an intake and screening manual explicating office policies on charging, the development of a directives system, the establishment of a paralegal program, the creation of a systematic, quarterly planning process, and the design of a comprehensive training program for staff prosecuting attorneys.

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[redacted] has developed long range information systems plans for district attorneys offices in Los Angeles, California and Detroit, Michigan.

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[redacted] has served on the faculty of Trinity College in Washington, D. C. as a lecturer in court information systems, and also lectured at the National College of District Attorneys.

[redacted] directed a cost-benefit study of social service programs for a state welfare agency, and was a key member of a project team which developed a reorganization plan for the District of Columbia Department of Public Welfare.

A graduate of Notre Dame University, [redacted] has also pursued management studies at the National Cryptologic School.

[redacted] is the author or co-author of the following articles:

[redacted] "Modern Management for the Prosecutor,"  
The Prosecutor VII (1971), 471.

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[redacted] "The Prosecutor's Role in The  
Urban Court System: The Case for Management  
Consciousness," Journal of Criminal Law and  
Criminology. LXIV, 2 (June 1973), 183.

PROJECT DIRECTOR

The project director to be recruited and hired by the Institute for Law and Social Research should have the following qualifications:

- . A masters degree in Business Administration or Systems Analysis or a related discipline of equivalent experience.
- . A minimum of five years experience in information systems, criminal justice or program budgeting preferably in combination; and a demonstrated ability to plan, organize and direct a project of this size and complexity.
- . An ability to interact with several technical professions in all levels of criminal justice practice.

COST ANALYST

The cost analyst to be recruited and hired by the Institute for Law and Social Research should have the following qualifications:

- . A degree in cost accounting, budgeting, economics or related management discipline.
- . A minimum of three (3) years experience in information systems preferably criminal justice.
- . Experience in cost and benefit analysis, planning or program budgeting.

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[redacted] is vice-president of the Institute for Law and Social Research in charge of computer systems. He has designed and implemented commercial and governmental management systems and also has had extensive experience in the analysis of criminal justice systems.

[redacted] is presently directing a project for the Superior Court Division of the United States Attorney's Office for the District of Columbia. He is in charge of the enhancement and maintenance of an innovative information system known as the Prosecutor's Management Information System (PROMIS). PROMIS is used to evaluate and control the prosecutorial system in the District of Columbia. [redacted] is also responsible for coordinating a national project to modify PROMIS for distribution to interested district attorneys' offices throughout the country.

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[redacted] was one of two analysts who programmed and implemented PROMIS in the U. S. Attorney's Office in Washington, D. C. for the District of Columbia Office of Crime Analysis. In addition, he participated in the development of the on-line PROMIS system which allows access into all pending cases through five video terminals in the U. S. Attorney's Office. He also participated in a management study for the U. S. Attorney's Office in Washington, D. C. to develop techniques to reduce the number of dismissals of criminal cases, and the time between arrest and grand jury indictment, and to increase the efficiency of the criminal case flow.

[redacted] participated in a management study for the Office of the Corporation Counsel of the District of Columbia to improve manual systems and procedures. This engagement included the description of the manual process to identify problem areas, the development of recommendations, and the implementation of these recommendations.

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Recently [redacted] was a consultant to the National Center for State Courts on the development of a court's data processing action plan for the 21st and 22nd Circuits of Missouri. The plan is the foundation for the development of a regional criminal justice information center.

[redacted] has also conducted preliminary research on evaluating the District of Columbia criminal justice system using the PROMIS data base and delivered a paper entitled "Using the PROMIS Tracking System for Criminal Justice Evaluation" to the SEARCH International Symposium on Criminal Justice Information and Statistics Systems.

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Previous to [redacted] work in the criminal justice area, he designed and implemented computer-based information systems including the Fairfax County Management Information System (FAMIS), a financial information system for the Social Rehabilitation Service of the Department of Health, Education and Welfare, a management statistical system for the Redevelopment Land Agency in the District of Columbia, and a postal simulation system for the United States Post Office.



[REDACTED]  
Resume (Continued)

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[REDACTED] received a Bachelor of Science Degree from the University of Maryland, majoring in Information Systems Management. He is presently taking graduate courses at George Washington University for a Master's in Business Administration and has completed courses in macro-economics, human behavior in business organization, and management analysis.

[ ] is the Director of Management Systems for the Institute for Law and Social Research. He is presently managing a project for the Superior Court Division of the United States Attorney's Office for the District of Columbia involving the following tasks:

- . surveying and analyzing the Division's paperwork and administrative problems and needs;
- . developing plans for improving current methods and procedures;
- . implementing or directing the implementation of these plans; and
- . serving as an expert consultant to the legal and administrative staff in various areas of paperwork and administrative management.

His accomplishments during the course of this project include:

- . establishing a program for the use of legal paraprofessionals.
- . directing the design and implementation of a comprehensive directives system for the prosecutor's office.
- . directing the redesign of forms and procedures for case screening and the initiation of prosecution.
- . developing arrest and bench warrant update procedures between the U. S. Attorney's Office and the Washington Area Law Enforcement System (WALEs).
- . developing procedures for comparison and coordination of case schedules between the court and prosecutor.
- . designing forms and procedures for tracking and recording grand jury case transactions; and
- . designing computer-produced case adjournment and disposition documents.

Prior to joining the Institute, [ ] was the Assistant Director, Paperwork Standards and Automation Division, National Archives and Record Service, General Services Administration. His responsibilities included:

- . developing and implementing government-wide programs aimed at reducing costs and improving efficiency in federal paperwork;

[REDACTED]  
Resume (Continued)

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- . conducting research in various areas of automation, record miniaturization, etc.;
- . developing workshops and handbooks on information retrieval;
- . conducting workshops, symposiums and conferences; and,
- . serving as expert consultant to various government agencies.

He also directed the activities of a staff of management analysts engaged in developing and publishing government-wide workshops, handbooks, and regulations.

[REDACTED] has also served as:

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- . Chief, Office Management Division, Department of Insurance, Veterans Administration where he was responsible for developing and directing agency-wide insurance paperwork management and administrative programs;
- . Organization and Methods Examiner, Veterans Administration, responsible for developing and implementing insurance underwriting surveys and audits of field installation; and
- . Insurance Underwriting Supervisor, Veterans Administration responsible for directing the work of up to 150 employees.

#### PUBLICATIONS

Information Retrieval Workshop, Information Retrieval Handbook, and articles in Office Management, American Archivist, Journal of the National Microfilm Association, Navy Management Review, systems and government agency publications.

#### AWARDS

Two Sustained Superior Performance Awards and two cash awards for introduction of improved methods and procedures at the Veterans Administration. Two Commendable Service Awards, a Presidential Citation, Outstanding Efficiency Rating, and the General Services Administration Meritorious Service Award for Leadership and Accomplishments at the National Archives and Records Service.

#### MEMBERSHIPS

American Society for Information Science, National Microfilm Association, and the Society of American Archivists.

[redacted] is a Training Systems Analyst with the Institute for Law and Social Research. She is primarily involved in the development and conduct of training programs and seminars in the areas of management, administration, and prosecution.

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[redacted] most recent major effort involves the development of an on-going training program for prosecutive, management, and administrative personnel in the Superior Court Division, United States Attorney's Office for the District of Columbia. The project, being funded by the Law Enforcement Assistance Administration through the District of Columbia Office of Criminal Justice Plans and Analysis, includes the design of programs for all three categories of personnel based upon detailed needs analyses. Her responsibilities also include the development of training aids and materials, coordination of pilot programs, and considerable liaison activity.

Her experience with the District of Columbia's United States Attorney's Office also includes work with PROMIS, the newly-initiated Prosecutor's Management Information System. [redacted] has been involved with training seminars related to PROGIS, a computer-based data bank used by prosecutors for information retrieval, management decision-making, and case assignment.

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[redacted] is also participating in the planning and development of a statewide organized crime training conference for the State of Ohio. The conference, being sponsored by the State of Ohio Organized Crime Prevention Council, is intended as a training vehicle for prosecutors, investigators, intelligence officers, and other law enforcement personnel. [redacted] responsibilities involve analyses of specific training needs, material development, and general coordination.

Prior to joining the Institute for Law and Social Research, [redacted] was with the Economic Development Administration, U. S. Department of Commerce as a Management Analyst. The primary responsibilities assigned to [redacted] were in general management and organizational areas. Her major task prior to leaving the Government was a special eight-month project for the Assistant Secretary analyzing manpower and organizational structure in the agency's six Regional Offices. [redacted] background further includes a U. S. Department of Commerce Management Internship and several months of research and editing for the National League of Cities/U. S. Conference of Mayors.

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[redacted] holds a Bachelor of Arts degree, cum laude, in political science from the University of Pittsburgh, and has done graduate work in management science at George Washington University. She has also been the recipient of an American Field Service Scholarship in 1965 for study in India.

AREAS OF SPECIAL COMPETENCE

Organization and Management  
Planning, Research and Evaluation  
Criminal Justice Information Systems  
Planning--Programming--Budgeting Systems  
Intelligence/Organized Crime Research  
Cost Analysis  
Community Development and Urban Systems  
Financial/Management Information Systems  
Police Traffic Services and Highway Safety

ACADEMIC BACKGROUND

Harvard College, A.B., Political Science  
University of Pennsylvania, MGA, Governmental Administration  
University of Iowa, course work in accounting and statistics  
Northwestern University, course work in electronic data processing  
University of Connecticut, certificate in municipal information technology.

EXPERIENCE HIGHLIGHTS

Consultant, in private practice in West Hartford, Connecticut.  
[redacted] serves as a consultant to the Florida Department of Law Enforcement in an on-going basis; his work for the Department has ranged from a full audit of organization and management to the development of an organized crime information system, to the preparation of a program planning document to substantiate creation of and funding for the Florida Police Academy, among other projects. During 1972-1973, [redacted] served as staff to the Organized Crime Task Force of the National Advisory Commission on Criminal Justice Standards and Goals/U.S. Department of Justice. He also served as a member of Governor Reubin Askey's Task Force to evaluate public safety and related support services at the 1972 National Political Conventions and contributed to its reports. [redacted] also serves as a consultant to several public and private organizations in an on-going basis.

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Branch Manager, Project Manager, Planning Research Corporation's Public Management Service (formerly Systems Science Development Corporation). While with PRC/PMS (and SSDC) [redacted] managed the following projects:

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An organization and management survey of the Palm Beach County Sheriff's Department; Long-range intelligence plan for the Florida Department of Law Enforcement; feasibility study of a metropolitan detective unit for a group of four Connecticut Police Departments; an information systems requirements analysis for the New York City Police

[REDACTED]  
Resume (Continued)

Department; an organization and management survey of the Ansonia (Connecticut) Police Department; a planning and research assistance contract for the New Bedford (Massachusetts) Police Department; an executive development (training) program for the Massachusetts State Police Department; consulting assistance for the Knapp Commission--the Commission to Investigate Alleged Police Corruption in the New York City Police Department; a records system's design for the Holyoke (Massachusetts) Police Department; and an evaluation of the organization, management and operation of the Palm Beach County Data Processing Department. In addition, [REDACTED] contributed to a series of other PRC/PMS (and SSDC) projects as follows: an evaluation of a command and control system for the Los Angeles Police Department; an information systems and training project for the New York Police Department; a police merger feasibility project and plan for the Lexington/Fayette County (Kentucky) Police Department; and an evaluation of the Intelligence Unit of the Tucson Police Department.

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Director, Criminal Justice and Public Safety Program, Travelers Research Corporation. While at TRC, [REDACTED] participated in twenty (20) different contracts for fifteen (15) sponsors. Specific projects completed at-TRC include: a survey of public safety services (police and fire departments) of the Town of West Hartford, Connecticut; a research project for the Connecticut Research Commission aimed at transferring police research and planning technology in three urban Connecticut police departments; an information systems project for the New Jersey State Law Enforcement Planning Agency; and a highway safety project for the Massachusetts Registry of Motor Vehicles.

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Other projects included: a crime and delinquency component for the Bridgeport Model Cities Neighborhood; a planning report for the Florida Bureau of Law Enforcement; the development of cost/effectiveness measures of police traffic services for the National Highway Safety Bureau; and a program budget structure (PPBS) for municipal police departments.

[REDACTED] City of Hartford, Connecticut. As supervisor of Budget and Research [REDACTED] prepared and controlled the operating and capital budgets prepared periodic and special analytical reports for management, and analyzed both conventional and data processing systems.

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Chicago Police Department, [REDACTED] was the Director of Finance for the Chicago Police Department, preparing, administering and controlling a one hundred million dollar budget. His responsibilities ranged from the approval of all purchases, issuance of financial reports, and consultation with the Superintendent to the management of research projects and the design and implementation of financial and non-financial information systems.

Public Administration Service. [REDACTED] was a staff consultant with Public Administration Service, a Chicago-based management consultant firm, engaged to assist in the reorganization of the Chicago Police Department. [REDACTED] was concerned primarily with financial operations and their reorganization. After the P.A.S. contract terminated, he did the same type of work with the International Association of Chiefs of Police, Washington, D. C.

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# PROJECT TIMETABLE

## TASKS

months

### Phase I

1. Organize project staff.
2. Choose four pilot states.
3. Prepare cost analysis framework..
4. Develop data collection instrument.
5. Select project advisory group.
6. Conduct site visits to two test states.
7. Prepare cost methodology for two test states.
8. Extend cost analysis to 3rd and 4th states.
9. Further refine methodology.
10. Prepare preliminary cost report for test states.
11. Document cost methodology for remaining states.
12. Estimate total costs for CDS for nation.

### Phase II

13. Document benefits for CJIS compared to pre-CJIS systems.
14. Develop cost and benefit methodology for CJIS with emphasis on OBTS-CCH.
15. Conduct site visits to measure benefits.
16. Document methodology and conduct training seminar.
17. Provide technical assistance.
18. Produce final outputs.

	1	2	3	4	5	6	7	8	9	10	11	12
1. Organize project staff.	■											
2. Choose four pilot states.	■											
3. Prepare cost analysis framework..	■											
4. Develop data collection instrument.	■											
5. Select project advisory group.	■	○			○		○				○	
6. Conduct site visits to two test states.		■										
7. Prepare cost methodology for two test states.			■									
8. Extend cost analysis to 3rd and 4th states.				■								
9. Further refine methodology.					■							
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○ Advisory Group meetings

△ Reports

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62-115930-2

ENCLOSURE

UNITED STATES GOVERNMENT

# Memorandum

TO : [redacted]

DATE: 4/1/74

FROM : [redacted]

SUBJECT: COMPREHENSIVE DATA SYSTEM (CDS) COST AND  
BENEFIT (CB) ADVISORY BOARD MEETING  
WASHINGTON, D.C.  
MARCH 27, 1974

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Ident. [ ]  
Inspection [ ]  
Intell. [ ]  
Laboratory [ ]  
Plan. & Eval. [ ]  
Spec. Inv. [ ]  
Training [ ]  
Legal Coun. [ ]  
Telephone Rm. [ ]

The above-captioned meeting was attended by SA's [redacted]

## BACKGROUND:

A grant (74-SS-99-3302) in the amount of \$203,009 was awarded by LEAA on 11/21/73 to the Institute for Law and Social Research (ILSR), 1025 15th Street, Northwest, Washington, D. C., for a project to be completed in 12 months.

A summary description of the project includes the following statements:

1. LEAA has earmarked approximately \$20 million in discretionary grant funds for development of LEAA's Comprehensive Data System (CDS) Project.

2. The General Accounting Office (GAO) has reported that both the Federal Government and state participants lack knowledge of potential costs and benefits in the project (CDS Project) and suggested that states be given such knowledge so they may make more intelligent decisions and plans.

Enclosures

1 - [redacted]  
1 - [redacted]  
1 - [redacted]  
1 - [redacted]

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Re: CDS CB Advisory Board Meeting

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(Note: GAO in its 1/16/73 Report to the Congress entitled "Development Of A Nationwide Criminal Data Exchange System -- Need To Determine Cost and Improve Reporting" addressed itself to "the prototype System for Electronic Analysis and Retrieval of Criminal Histories (Project SEARCH)". . .largely an experiment in the interstate exchange of criminal histories of offenders ". . .funded under. . .the Omnibus Crime Control and Safe Streets Act of 1968, as amended (42 U.S.C. 3701)" and further developments, including authorization by the Attorney General in 1970 of "the FBI to manage the exchange system." The report states "LEAA has continued to assist States to participate in the system."

The Report states that "Despite the substantial Federal funds already committed to this system and a greater funding commitment expected in the future, LEAA and NCIC officials told us that neither agency had estimated the total cost of a fully operational system. According to statements by LEAA and state officials, a fully operational system could cost at least \$100 million."

Recommendations in the Report addressed to the Attorney General were:

"We recommend that, before authorizing any substantial additional expenditures for the system, the Attorney General require that:

"--Either the FBI or LEAA determine the total cost of developing and operating the criminal history exchange system so that the participants can decide whether they are able, or willing, to meet the system's financial requirements. [This, of course, implies that an individual state would be unable to determine its costs, which will vary from other states according to a state's system configuration, wage scales, configuration differences based on individual state requirements, and variables such as population, state area, capability of available communication system in state, crime rate, data collection procedures presently existing, and status of system development within the state.]

[redacted] Memo  
Re: CDS CB Advisory Board Meeting

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"--The FBI and LEAA implement a program for improving the reporting of arrests and dispositions by law enforcement agencies, courts, and correctional institutions to State agencies which enter such data into the national system." [The Department of Justice Notice of Proposed Rulemaking recently published in the Federal Register and proposed legislation before the Congress address themselves to this point.]

GAO, in its report, did not recommend a determination be made of the costs of LEAA's total CDS funding program which includes five inseparable subprograms:

1. Computerized Criminal Histories (CCH)/Offender Based Transaction Statistics (OBTS) development.
2. Uniform Crime Reporting (UCR) development.
3. Technical assistance capability development.
4. Statistical Analysis Center establishment.
5. Management and administrative statistics capability development.)

3. ILSR, a non-profit corporation chartered in the District of Columbia, will undertake to provide cost and benefit analysis methodology aimed toward satisfaction of the GAO recommendation and, in addition, will project the total developmental and operating costs for the 26 states which have submitted CDS plans, and for the remaining states and the District of Columbia; and will provide technical assistance to the states on the use of the new cost and benefit technique.

4. During phase one of the project, the basic cost analysis will be developed and tested in two states and then applied in two additional

[ ] Memo  
Re: CDS CB Advisory Board Meeting

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states. During phase two of the project, a methodology will be developed and tested analyzing cost and benefit relationships.

5. The project is expected to result in state-level acceptance and use of methods of cost and benefit analysis of the comprehensive data system and related criminal justice information systems and to lead to better planning and resource allocation decisions in the criminal justice field.

The "focus" of the project is to "be on the OBTS-CCH system with a lesser emphasis on the other elements of the CDS project. However, because of the close interdependency between OBTS-CCH and certain supportive systems such as Want/Warrant, intrastate NCIC, and message switching for NCIC Washington, the project staff will also encompass to the extent necessary, a cost and benefit analysis of the supportive systems." (The underscored item indicates that ILSR is expected to inquire into and cost out and establish the benefits of interstate NCIC message switching for LEAA.)

Professional services to be provided ILSR are to include those of an Advisory Committee. This committee is to review the project plan, data collection instrument, cost analysis and benefit analysis methodologies, and briefing materials. It will provide on-going evaluation of cost methodology through its regular meetings and final evaluation will be through an assessment of the level of understanding and acceptance of the cost and benefit technique with the participating states. It will assist in a final evaluation of the project.

MEETING OF COMPREHENSIVE DATA SYSTEMS (CDS) COST AND  
BENEFIT ADVISORY BOARD, MARCH 27, 1974:

Enclosed are a list of attendees of the meeting of above-captioned board on 3/27/74 in the offices of ILSR and the meeting agenda.

[ ] Memo  
Re: CDS CB Advisory Board Meeting

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CDS Presentation by [ ] LEAA

During a presentation made by [ ] LEAA, he indicated that ILSR is nearing completion of LEAA's CDS funding guidelines<sup>b6</sup> which must be met by individual states and have been in conflict with NCIC<sup>b7C</sup> CCH policies. <sup>and</sup> would be made available to NCIC for review before being published. [ ] said LEAA would do this the week of 3/31-4/6/74.

[ ] emphasized that CDS program funding decisions are made by LEAA's regional offices. He distributed a document, "The CDS Program - Status Summary (as of February 22, 1974)" (enclosed), and another document, undated ("Study State Selection Factors" - enclosed), that indicate 24 states have submitted CDS action plans and 6 states had plans in preparation. The documents also indicate the UCR component of four state plans is operational, one will be operational in April, 1974, seven UCR grant awards have been made, and one UCR grant application is in review. The documents reflect 11 states have been granted OBTS/CCH funding and another state had a grant for this purpose in review. The states listed as having been awarded OBTS/CCH grants are: Massachusetts, New Jersey, Maryland, Michigan, Minnesota, Ohio, Arkansas, Louisiana, Oklahoma, Utah, and Oregon. Maine's application was in review.

Address by [ ] LEAA

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[ ] Deputy Administrator for Administration, LEAA, spoke to the Board emphasizing the importance of the grant to the headquarters of LEAA. His remarks indicated that "we" have a tremendous challenge as to where criminal justice systems will go in this country, and "we" must muster every resource to do a more adequate job in the future than in the past. He has both "a dream and a nightmare." The dream is that criminal justice systems, properly developed, will achieve rapid improvement of criminal justice across the country. LEAA has a deep commitment to make for system improvements -- \$50 million a year. The nightmare he sees is that perhaps 5 or 10 years from now the Congress will

[redacted] Memo  
Re: CDS CB Advisory Board Meeting

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be looking over LEAA's shoulders and say the systems do not work, they cannot speak to one another (apparently this is an indirect reference to need for a national telecommunications system), or they are not being used. "We" still have an opportunity to build the dream and avoid the nightmare. The Board can help fulfill the dream.

He emphasized the importance of systems being useful and suggested that policy makers in the front lines of criminal justice are not doing enough themselves in making systems useful and may be making the mistake of leaving their development to technical people. This can be expected to lead to systems which will not produce the information needed by policy makers and "we" will have failed. (No specific mention was made of day-to-day operational needs which can be met by such systems.)

He advised that the foregoing theme will be presented at the April 30 - May 3, 1974, Project SEARCH Symposium - Standards and Goals Conference in San Francisco. The theme will be developed with the idea of increasing consciousness and visibility of system development problems at the level of management in local and state government. He wants to make the Attorneys General, the Governors, and legislatures aware of what they should be doing in the area of criminal justice systems development. He said LEAA wants to "electrify" criminal justice leadership about the potential of the CDS program.

[redacted] said LEAA has come to feel strongly that the key to success in making something "fly" is to get input from a variety of different sources. It is necessary for a good relationship to exist between the Governors, the state legislatures, and the state judiciaries. He spoke of this as a "principle of involvement" -- involving everyone, so objections will not be raised at a later date. b6 b7c

He noted that the three top people in LEAA -- [redacted] and he -- are all enthusiastic supporters of criminal justice systems.

[ ] Memo  
Re: CDS CB Advisory Board Meeting

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At the San Francisco symposium LEAA's future strategy will be developed, the next year it will be designed, and the following year it will be ready for implementation. He noted in this regard that LEAA comes up for "reenactment" in 1976 and LEAA wants to be able to show the Congress the overall strategy and that input has been received by LEAA from a variety of agencies. (This ties in with previously expressed LEAA strategy designed to have a national telecommunications system operational for the Nation's Bicentennial -- 1976.) The CDS program is an important building block in the overall grand strategy, [ ] said.

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[ ] also advised that Congress, as encouraged by LEAA, is thinking of what is to be the long range policy for national criminal justice telecommunications. Congress, he said, is looking for help in this regard and key Congressmen and Senators have not developed "party line positions." The staffs of the legislators are looking at the problems.

[ ] said Senator Ervin has proposed a COMSAT-type board that would develop national coordination for all criminal justice systems. The alternatives are a national or Federal board or a Federal system. This issue has surfaced in Congress and the Congress is most concerned. A Washington reporter, [ ] has disclosed an internal dispute existing between LEAA and the FBI and, he said, this all ties together. He expressed a desire to have all of this laid out for the people of this country so that they will know how this all fits together.

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He said if Senator Ervin's COMSAT-type board is established then Congress will have taken many of these issues and given them to the people who will have jurisdiction over the systems (the COMSAT-type board).

[ ] also advised that the differences between the Department proposed criminal justice system legislation and Senator Ervin's proposed legislation will be "put on the table" in San Francisco.

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[redacted] Memo  
Re: CDS CB Advisory Board Meeting

He said it is important to keep in mind the kind of product which will be developed -- nationally.

[redacted] made no mention of the FBI, except in his single reference to the LEAA-FBI dispute.

#### Cost and Benefits Methodology

Personnel of ILSR discussed preliminary plans for methods to be used to estimate costs and benefits. An example was furnished of how a state's UCR costs could be ascertained. It was noted that it will be much more difficult to establish OBTS/CCH costs than UCR costs but similar methods were expected to be used. (See "State UCR Analysis -- Annual Costs," "State UCR Analysis -- Developmental Costs," "Overview of Cost Estimation Procedure for Component Development," and "Quantity Factor Computation Technician Training for State UCR Analysis," all enclosed.)

ILSR personnel also discussed determination of benefits to be derived from implementation of CDS program components. Enclosed is a document entitled "A Preliminary List of Expected Benefits and Contributing Component Characteristics of a Computerized Criminal Histories System" which was prepared to indicate how benefits are expected to be identified. Considerable discussion related to how benefits would be given dollar values. The ILSR presentation began by giving an example of how costs of crime ("Estimating Costs Associated With Crime" - enclosed) can be presented by crime classification, by cost to various segments of the business community, by cost to operate types of public agencies, etc. A document "Social Costs Associated With Crime" was furnished which lists nine crime cost categories with examples of each. The document is enclosed. Also, a planning document prepared for purposes of illustration was made available. It is entitled "Annual Benefits and Costs Associated with the Comprehensive Data System Program" and is enclosed. This

[redacted] Memo  
Re: CDS CB Advisory Board Meeting

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document and its explanation stimulated discussion as to whether dollar values can be applied to abstract benefits. It is expected ILSR will analyze benefits in terms of those internal to the criminal justice system and also external to the system.

Assurance was obtained that an effort would be made to segregate costs and benefits attributable to CCH from the statistical use of CCH which is OBTS.

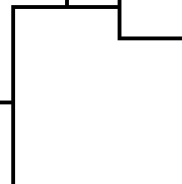
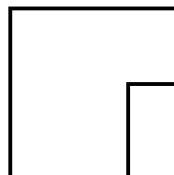
It was announced that the states of New Jersey and California have been selected as the two states which will be used in phase one of the project for the development and testing of the basic cost analysis and for application in two additional states. A number of other states were suggested for consideration as states three and four.

The ILSR staff identified as a problem the single state/multiple state storage concept versus the pointer system storage concept for the CCH program. It is expected that ILSR staff will have further discussion with NCIC staff personnel in this regard.

In view of GAO's interest in determining the total cost of developing and operating the criminal history exchange system, the FBI personnel present asked if ILSR, LEAA, or the Board would establish liaison with GAO so that organization would be aware of the nature and progress of the project. It was determined that GAO personnel had been invited but were unable to attend the Board meeting. Also, ILSR has had contact with GAO personnel concerning the project.

ACTION:

This is for your information.



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UNITED STATES GOVERNMENT

# Memorandum

TO : [REDACTED]

FROM : [REDACTED]

SUBJECT: BRIEFING - INSTITUTE OF LAW AND SOCIAL RESEARCH (NON-PROFIT CORP) STUDY - CCH AND RELATED STATE PROGRAMS

re

DATE: 7/31/74

Assoc. Dir. \_\_\_\_\_  
Dep. AD Adm. \_\_\_\_\_  
Dep. AD Inv. \_\_\_\_\_  
Asst. Dir.: \_\_\_\_\_

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Telephone Rm. \_\_\_\_\_  
Director Sec'y \_\_\_\_\_

The above-captioned Institute has been conducting a study of Comprehensive Data Systems (CDS) efforts in the States to determine costs in response to GAO criticism. CDS for planning and LEAA funding purposes is the "umbrella" for State development of CCH as well as Offender Based Transaction Statistics (OBTS), etc. Considerable insight to State problems, capabilities, and expectations has been obtained by the Institute Staff in conducting this LEAA funded study. The three staff members - [REDACTED] will be at the OPE Conference Room (Room 5240) on Friday, August 9, 1974, at 9:00 a.m., to brief Bureau officials on their findings to date.

This will confirm arrangements made with Assistant Directors Decker and Jacobson. Mr. Decker is handling liaison with the Identification Division as appropriate.

[REDACTED] (6)

1 - Mr. Decker  
1 - Mr. Jacobson

[REDACTED]

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UNITED STATES GOVERNMENT

# Memorandum

TO : [REDACTED]

DATE: 8/12/74

FROM : O. T. Jacobson

SUBJECT: BRIEFING - INSTITUTE OF LAW AND SOCIAL  
RESEARCH (NON-PROFIT CORP) STUDY -  
CCH AND RELATED STATE PROGRAMS

Dep. AD Inv. \_\_\_\_\_  
Asst. Dir. \_\_\_\_\_  
Admin. \_\_\_\_\_  
Comp. Syst. \_\_\_\_\_  
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Legal Coun. \_\_\_\_\_  
Telephone Rm. \_\_\_\_\_  
Director Sec'y \_\_\_\_\_

Reference is made to memorandum [REDACTED] dated 7/31/74, and captioned as above, which advised that the Institute of Law and Social Research was briefing Bureau officials regarding their findings to date into the cost of Comprehensive Data Systems (CDS). This briefing was held at 2:00 p.m. on Thursday, 8/8/74 and was conducted by staff members [REDACTED].

Attending the briefing were representatives from the Identification Division, Computer Systems Division and Office of Planning and Evaluation (OPE). In addition to the Bureau representatives, this briefing was attended by [REDACTED] Executive Director of Search Group Incorporated and [REDACTED] Director, Police Information Network, Raleigh, North Carolina, who is also Chairman of the NCIC Advisory Policy Board.

The Institute of Law and Social Research Study is a ten-state survey being conducted for the purpose of determining the national cost of an interstate criminal history exchange. This study is scheduled to be completed by 11/21/74. During the briefing the staff members made the following observations as a result of contact with interested state and local officials thus far:

REC-88 62-115930-5  
The Criminal Justice System cannot operate effectively without the criminal history being tied to a system which positively identifies the offender.

1 - [REDACTED]  
1 - [REDACTED]  
1 - Mr. Decker

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1 - [REDACTED]  
1 - [REDACTED]

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Memo to   
Re: Briefing - Institute of Law and Social  
Research (Non-Profit Corp) Study -  
CCH and Related State Programs

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A national fingerprint file will always be needed to identify the multi-state offender and as a back-up to the state files.

LEAA funding is essential to CCH.

CCH implementation is lagging for many reasons (technological, procedural, and inter-governmental).

NCIC/CCH and LEAA/CDS rules and regulations are viewed as barriers to CCH implementation in less advanced states.

CCH conversion is a major cost consideration, but is an area for future potential cost savings.

National CCH cannot replace individual State CCH Systems and many state administrators expect the FBI to operate a CCH pointer system.

Many states view the FBI's identification service as adequate and feel it will continue forever.

The lack of national direction has increased CCH development cost.

There is a communications gap between the states and the NCIC/CCH policy makers.

There is instability of NCIC/CCH policy.

There is inadequate technical assistance and system documentation.

Memo to   
Re: Briefing - Institute of Law and Social  
Research (Non-Profit Corp) Study -  
CCH and Related State Programs

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The FINDER Program is going on but is not being integrated to the national plan.

The CCH System was prematurely released resulting in lack of documentation and clear game plan for cooperation between the Identification Division and CCH at the FBI.

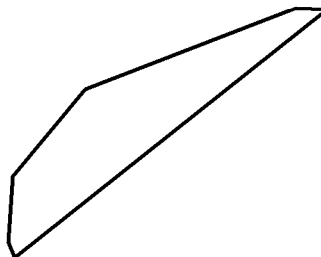
LEAA and NCIC documentation guidelines for CCH implementation are incomplete.

Uncertainty about future policy of the FBI Identification Division.

The Office of Planning and Evaluation's study of CCH and AID is underway and the above observations made by the staff members of the Institute of Law and Social Research are being taken into consideration and will be thoroughly looked into.

RECOMMENDATION:

None, for information.



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UNITED STATES GOVERNMENT

# Memorandum

TO : Mr. Decker

DATE: 10/17/74

FROM :

SUBJECT: COMPREHENSIVE DATA SYSTEM (CDS) COST AND BENEFIT STUDY, INSTITUTE FOR LAW AND SOCIAL RESEARCH (ILSR)

Assoc. Dir. \_\_\_\_\_  
Dep. AD Adm. \_\_\_\_\_  
Dep. AD Inv. \_\_\_\_\_  
Asst. Dir.:  
Admin. \_\_\_\_\_  
Crim. Inv. \_\_\_\_\_  
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Director's Sec'y \_\_\_\_\_

This memorandum was prepared to document certain specific issues raised during the Advisory Board meeting held at ILSR offices on 10/16/74, and which we attended together with SA [redacted]

[redacted] The enclosed printed material reflects in some detail the status of the ILSR study of the cost and benefits of the Comprehensive Data System, however, it would appear appropriate to document several specific potential problem areas identified during the meeting which are of vital concern to the FBI, and to reflect how those issues were resolved.

The issues in question evolved during discussions of the CCH/OBTS prototype and various preliminary assumptions which had been formulated by ILSR for use as the basis for projecting the cost and benefits of an operational Comprehensive Data System. While the purpose of the ILSR study is not to evaluate the current policies and procedures of the operational NCIC CCH File or recommend changes thereto, the published study results could logically be expected to have an influence on decisions made by the states in planning and implementing their CCH programs. Accordingly, it was important that the below-identified issues be clarified and the related NCIC policy or procedure fully explained. The four major areas were:

Enclosures

1 - Mr. Decker

1 - [redacted] (with enclosure)

(4)

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Memo to Mr. Decker

Re: Comprehensive Data System (CDS) Cost  
and Benefit Study, Institute for Law  
and Social Research (ILSR)

1) ILSR representatives indicated that in the interest of cost and simplicity they would use as one of their basic assumptions the premise that the states would convert only first offenders, and then, of course, keep those records updated as required to reflect additional activity. The absolute necessity of permitting individual states to select histories for conversion on the basis of their own particular needs was stressed by FBI representatives, with result that ILSR agreed to reflect in their study the cost and benefits of two approaches - (1) conversion of first offenders only, and of (2) selective conversion which would include the option to convert records which included historical data. (ex: prison population, offenders connected with organized crime)

2) ILSR representatives indicated that in their contact with personnel of ten study states, they had gained the impression that there was considerable opposition to the conversion of out-of-state arrests, and that many of the states contacted were not planning to convert data relating to arrest activity in other states. NCIC conversion policy was brought to the attention of the meeting and it was pointed out that failure to convert out-of-state activity in the record of a multiple state offender would result in incomplete criminal histories. Since the users are relying on CCH records to be a complete and current account of prior criminal activity, acceptance of incomplete records from participating states was clearly undesirable. It was reiterated that incomplete records had not been accepted from the present participating states, the FBI in its conversion of the Federal offenders had followed the policy of full conversion of all historical data irrespective of the origin of the arrest, and that acceptance in the future of incomplete records from the states could not be contemplated.

Memo to Mr. Decker

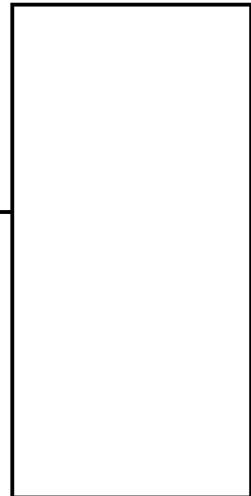
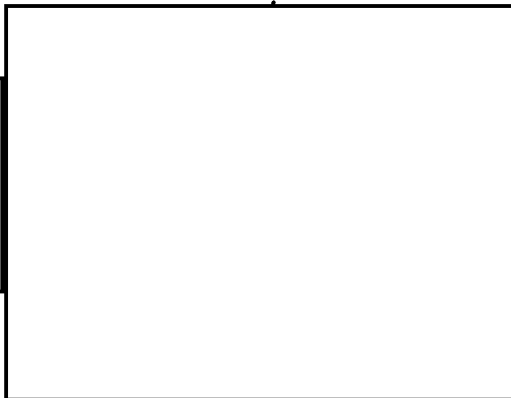
Re: Comprehensive Data System (CDS) Cost  
and Benefit Study, Institute for Law  
and Social Research (ILSR)

3) The single state-multi state concept which is so basic to the current operation of the NCIC CCH System was detailed to the meeting participants and ILSR representatives agreed that it was a viable concept which they would recognize in their study.

4) After some discussion it was agreed by ILSR representatives that they would recognize level 2 and 3 participation as practical alternatives to level 1 participation for the less populous and/or affluent states.

ACTION:

None, this is for information.



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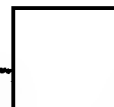
PRELIMINARY NOTES

~~X~~Comprehensive DATA System  
CDS Cost and Benefit Analysis

Advisory Board Meeting

October 16, 1974

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10/9/74

## I. Project Status

Early October finds us moving toward national cost estimation by November 21.

1. Data Collection in study states is virtually complete. (See Attachment A for a list of study states, survey status and areas of interest.) The principal emphasis of the state visits included: obtaining descriptions of CDS activities; collecting unit cost and volumes; and estimating developmental costs from available cost and budget data.

A survey of more than 5,000 FBI rap sheets is currently underway to determine the percentage of single-state vs. multi-state offenders. The results of this study may have a significant impact on the magnitude of our national cost projection.

2. Analysis has principally concerned CCH and OBTS. On the basis of this analysis a CCH/OBTS prototype has been constructed. (See Attachment B.) The prototype and its several variations will be used to estimate costs for states which are not now active in CDS and for those states without significant development costs. (Several CCH/OBTS variations are outlined in Attachment C.)

The analysis has also produced a series of assumptions which will be used as part of our cost estimation. (See Attachment D.)

3. Additional data collection planned during the next several weeks will summarize the most current data on development costs available from LEAA grant applications and project status reports.

## II. The CCH/OBTS Prototype

A portion of the CCH/OBTS Prototype and accompanying narrative is contained in Attachment B. The complete prototype will be a key element in formulation of national cost estimates.

As mentioned above, the prototype will be used for purposes of estimating nationwide costs of operating a criminal history exchange -- a system within the current levels of technology. The prototype configuration which we have selected is a "medium speed" response system.

In addition to the prototype, other system variations are being developed which may be more or less advanced in terms of speed of response (low to high), level of technology (existing to future) and cost (low to high). The more important of these several variations are listed in Attachment C.

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III. Preliminary Assumptions

Since we plan to discuss the assumptions on October 16, we ask that you review Attachment D prior to the meeting, giving special attention to the implications of those assumptions.

IV. Final Report Outline

A tentative final report outline is contained in Attachment E.

V. Tentative Agenda Items for October 16 Meeting

- . Project Status
- . Rap Sheet Survey
- . CCH/OBTS Prototype and Variations
- . Preliminary Assumptions (Advisory Board approval if possible)
- . Final Report Outline and Cost Presentation Format

STUDY STATES

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<u>STATE</u>	<u>SURVEY STATUS</u>	<u>AREA OF INTEREST</u>
NEW JERSEY	✓	COMPREHENSIVE, OPERATIONAL OBTS DATA COLLECTION SYSTEM.
FLORIDA	✓	COMPREHENSIVE, SINGLE FINGERPRINT CARD SYSTEM. ADVANCED DEVELOPMENT.
ILLINOIS	✓	VIDEOTAPE IDENTIFICATION PROCESS AND TRANSACTION-ORIENTED U.C.R.
MINNESOTA	✓	ADVANCED DEVELOPMENT IN A SMALL POPULATION. TRANSACTION-ORIENTED UCR LINKED TO OBTS.
TEXAS	✓	OPERATIONAL CCH WITHOUT CDS FUNDING
ARIZONA	✓	REGIONAL & MUNICIPAL FOCUS. ON-LINE TO NCIC/CCH.
MISSOURI	✓	VERTICAL COURT INFORMATION SYSTEM AND MAJOR REGIONAL C.J. SYSTEMS.
GEORGIA	✓	CONTRACTOR MANAGED DEVELOPMENT. FULL CDS IMPLEMENTATION UNDERWAY. COMPREHENSIVE COST ESTIMATES AVAILABLE.
VIRGINIA	✓	SPECIAL IDENT PROCEDURES.
CALIFORNIA	✓	LARGE SCALE SYSTEM.
WEST VIRGINIA		MINI-COMPUTER SYSTEM, MIRACODE AND RECORDS CONVERSION PROCESSES.
NEW YORK		FACSIMILE PRINT TRANSMISSION.

ATTACHMENT B

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CCH/OBTS Prototype

1. CCH-Arrestee Processing. The attached flow charts represent a portion of the total CCH prototype.

This part of the process is the most complex and most closely related to the assumptions listed in Attachment D.

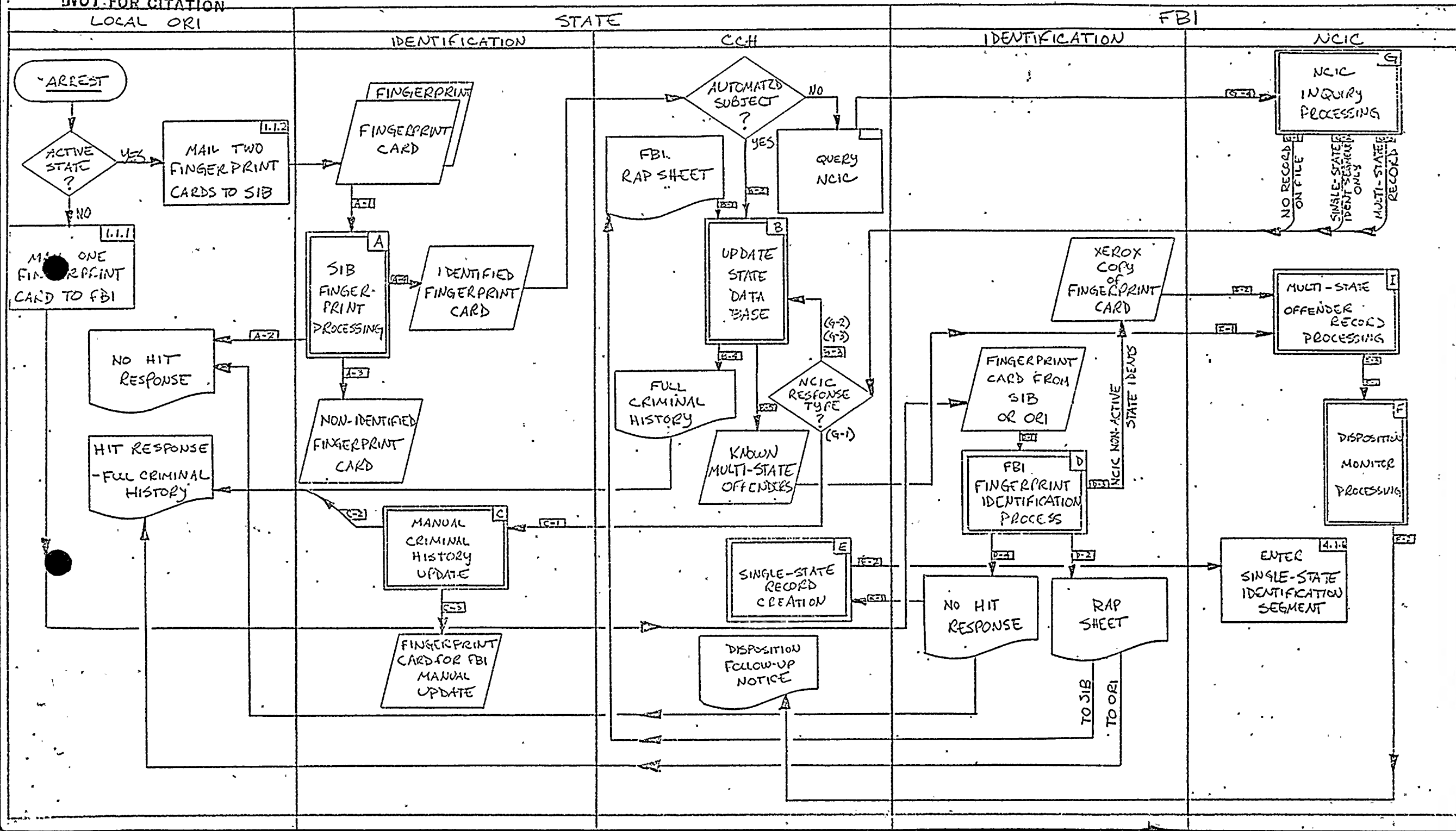
Note that the Summary Chart is supported by detail charts, A through I, for each double-ruled process box on the chart.

2. Keyed narrative descriptions are being revised and will be sent under separate cover.

~~NOT FOR CITATION~~

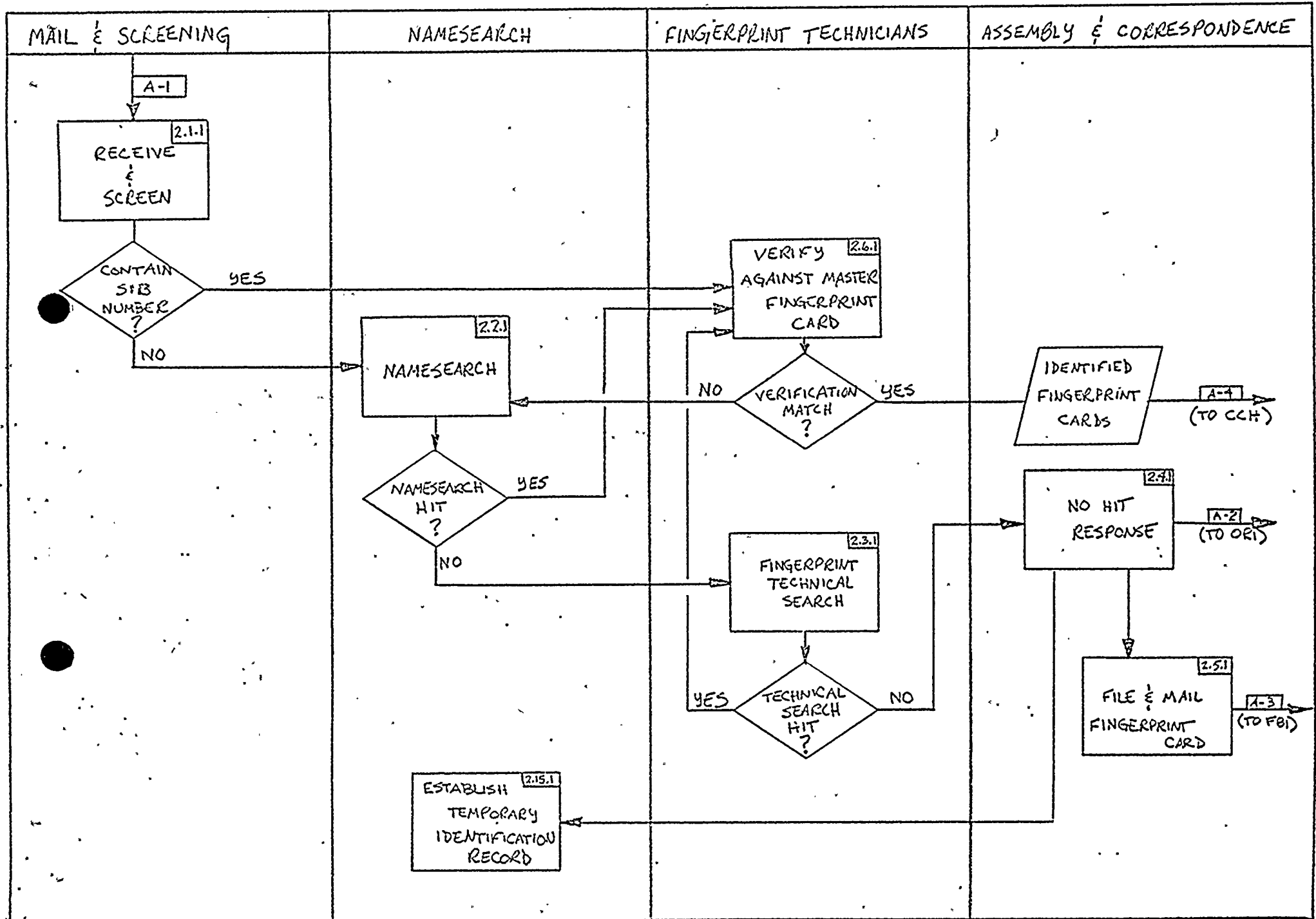
## CCH/OBTS PROTOTYPE: CCH ARRESTEE PROCESSING. (SUMMARY)

**PRELIMINARY**  
**NOT FOR CITATION**



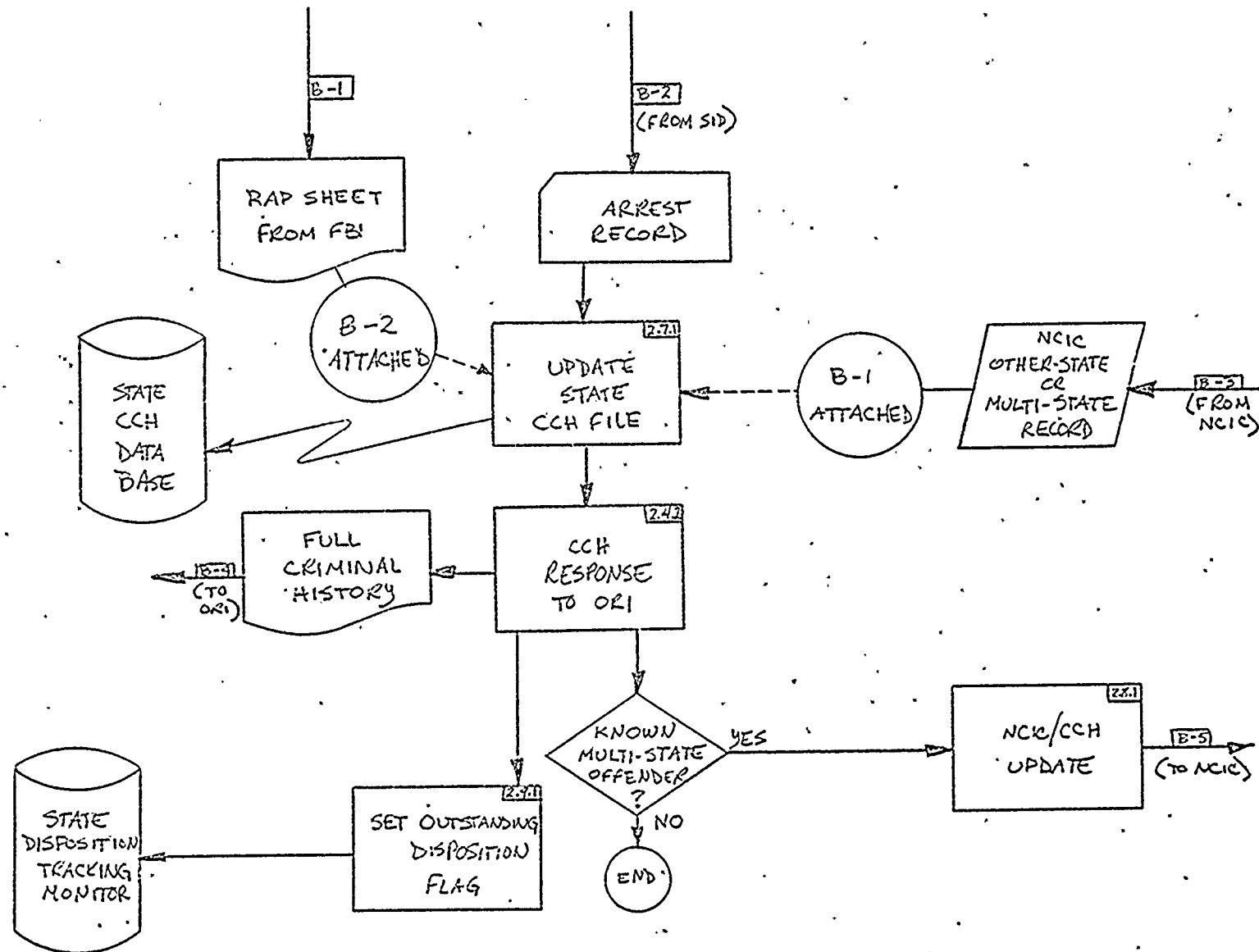
# CHART A - SID FINGERPRINT PROCESSING

PRELIMINARY  
NOT FOR CITATION



# CHART B - UPDATE STATE CCH DATA BASE

PRELIMINARY  
NOT FOR CITATION



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Unresolved Procedure

Condition: Prior offender in manual state system is found, upon query to NCIC, to have an NCIC other-state, or multi-state record.

Which Action Should Follow?

1. Update manual state file and update NCIC with arrest segment.
2. Create automated state record and update NCIC.
3. Create automated state record, convert prior manual in-state history, and update NCIC with multiple arrest segments.

NOTE: Number 1 imposes a cost on the state with no immediate benefit to the state. Number 2 leaves the state record split between manual and automated systems. Number 3 imposes a high cost and probability of incorporating inaccurate data inherent in converting manual histories.

*NCIC should  
be current?*



October 9, 1974

Unresolved Procedure

Condition: FBI rap sheet returned to SIB identifying new offender in that state, with prior offense(s) in another state(s), but no NCIC record established.

Which action should follow?

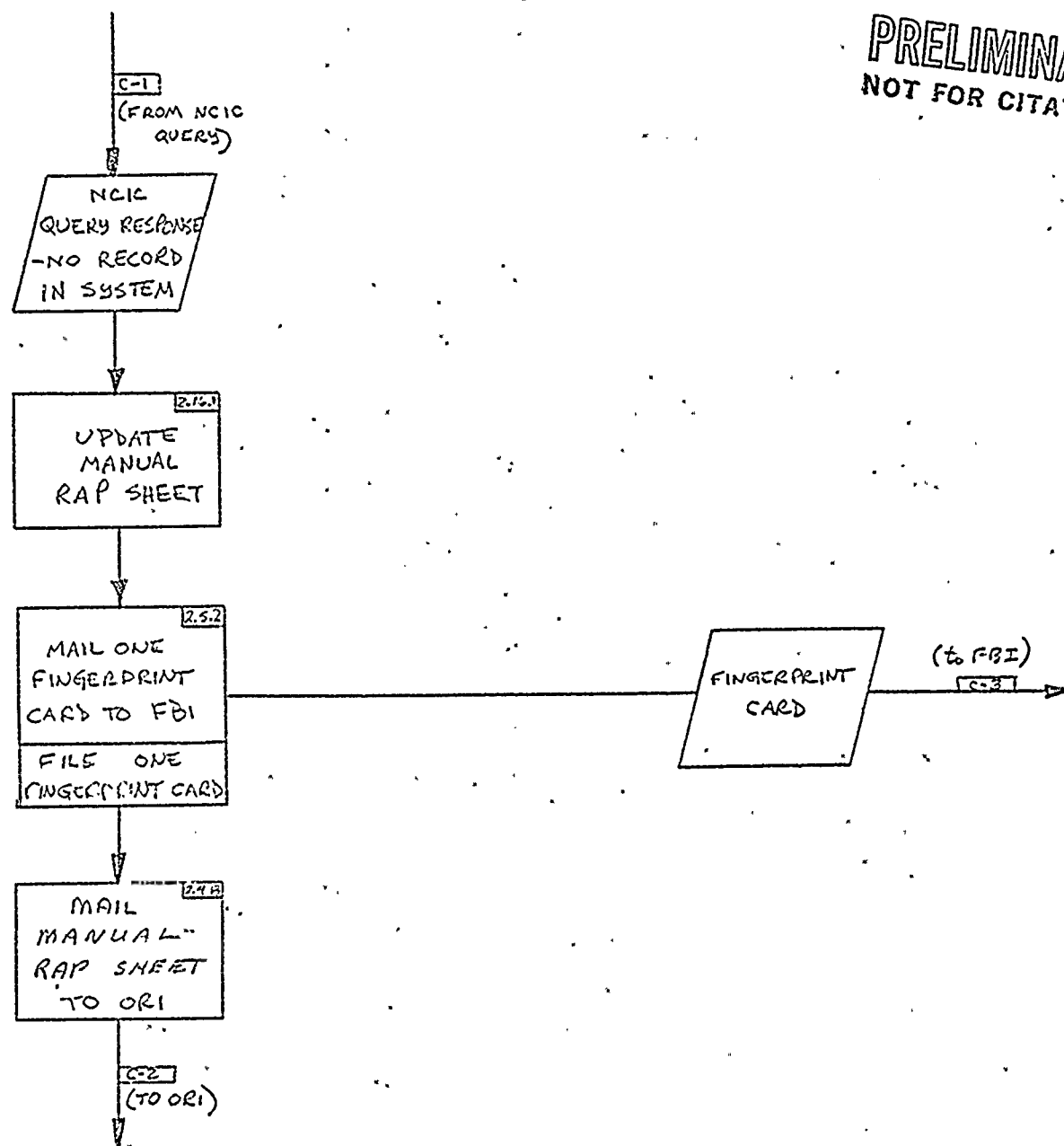
1. State automates new offender record in its own CCH but does not place pointer in NCIC.
2. State automates record and places pointer in NCIC.
- ✓ 3. State automates record, converts out-of-state prior offense record, and enters multi-state record in NCIC.

NOTE: Procedure No. 1 assumes ~~that no jurisdiction will be willing to convert the prior offenses;~~  
No. 2 assumes that ~~NCIC will accept the task of converting the prior record.~~ No 3 assumes  
that the state of current arrest will accept the responsibility for converting a record of  
arrest(s) in other state(s).

*ncic?*

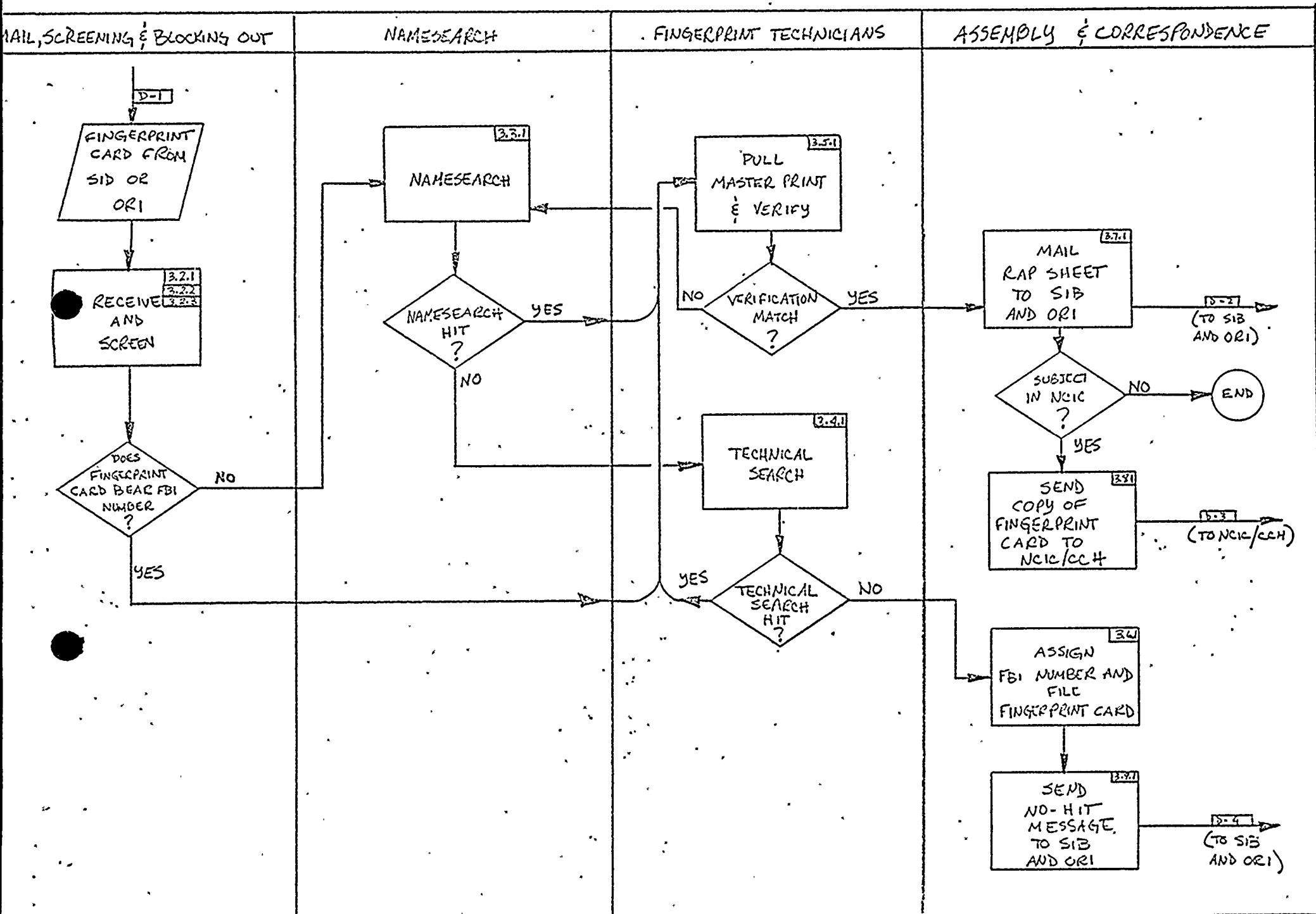
CHART C- MANUAL RAP SHEET, UPDATE AT STATE SIB  
(PREVIOUS OFFENDER WITH NO MULTI-STATE RECORD)

PRELIMINARY  
NOT FOR CITATION



# CHART D - FBI FINGERPRINT IDENTIFICATION

PRELIMINARY  
NOT FOR CITATION



# CHART E - SINGLE-STATE RECORD CREATION AT STATE CCH UNIT

PRELIMINARY  
NOT FOR CITATION

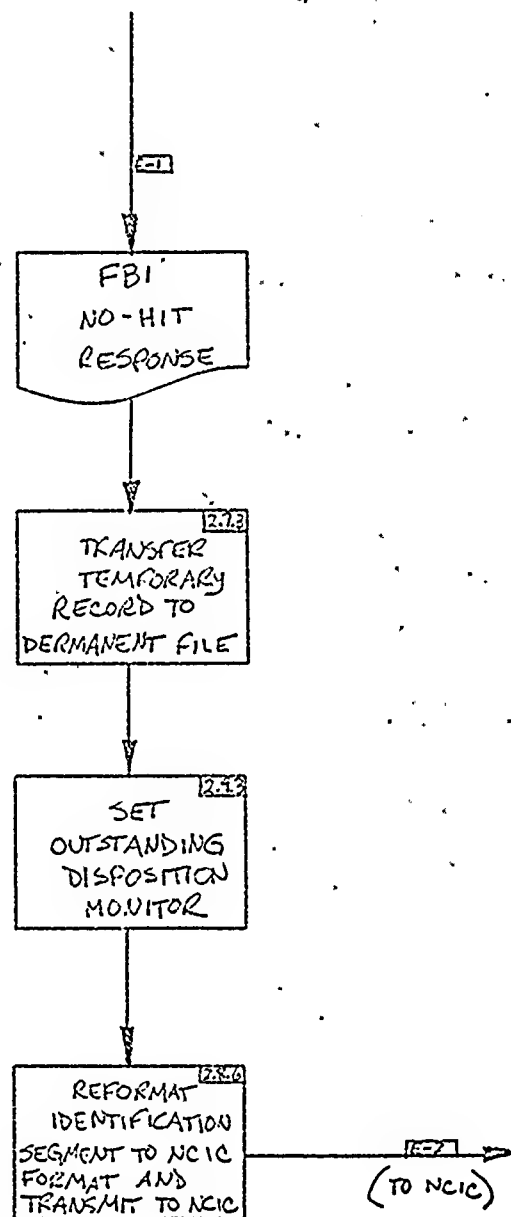


CHART F - DISPOSITION MONITOR PROCESSING AT NCIC  
(not an existing procedure)

PRELIMINARY  
NOT FOR CITATION

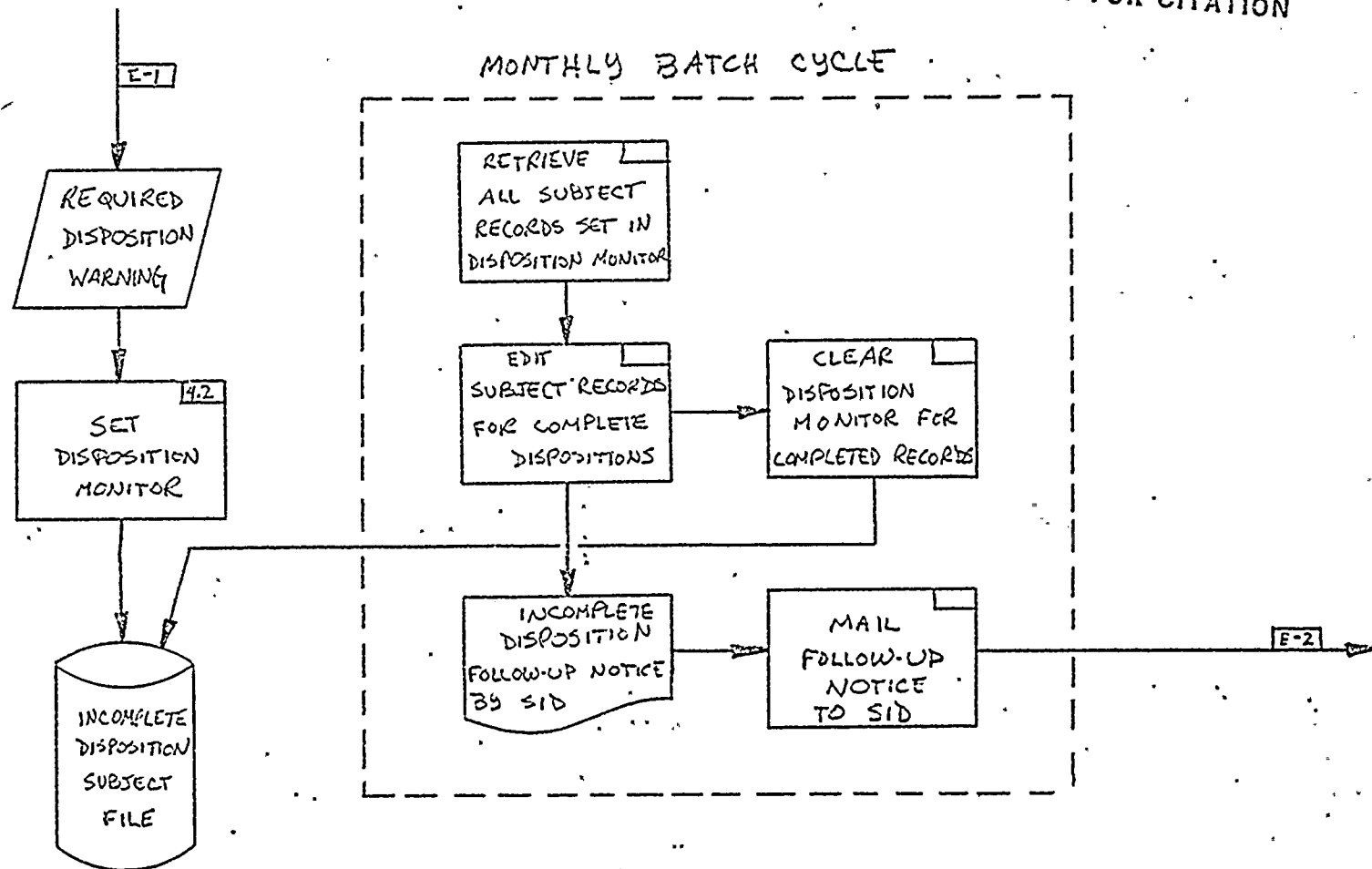


CHART I- MULTI-STATE OFFENDER RECORD PROCESSING AT NCIC

This chart under revision  
10/9/74

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CCH/OBTS Variations with Major Cost or Benefit Impact

Cost Determinant	CCH/OBTS Prototype	Variations	Comments
Central File Contents	S-S Pointer M-S CS on-line CH off-line	Pure Pointer	Pure Pointer allows imminent participation by all states.
State Record Conversion Policy	First Offenders	<ul style="list-style-type: none"> <li>◦ Prior Records of active subjects</li> <li>◦ Historical Conversion</li> </ul>	Can affect total CCH development cost by 50%
Identification Task Sequence	1-SID Name Search 2-SID Tech Search 3-FBI Name Search 4-FBI Tech Search	1-SID Name Search 2-Remote FBI Name Search 3-SID Tech Search 4-FBI Tech Search	Drastic Turnaround improvement. Fewer SID tech searches may pay for necessary fax.
Source of CCH Disposition Data	Agency of Occurrence to State Repository	<ul style="list-style-type: none"> <li>◦ State Judicial and Corrections Informations Systems</li> <li>◦ Local Law Enforcement</li> <li>◦ Local and Regional Information Systems</li> </ul>	Use of existing data collection systems can reduce CCH cost
OBTS Data Collection	Single data collection effort supplies both CCH and OBTS data	<ul style="list-style-type: none"> <li>◦ Additional data collection from prosecutor.</li> <li>◦ Dual data Collection systems</li> </ul>	OBTS data collection may add nothing to CCH collection cost, but could double it.
Fingerprint Submission Mode	Mail	<ul style="list-style-type: none"> <li>◦ Facsimile</li> <li>◦ "Packed" facsimile</li> </ul>	CCH benefits depend on rapid identification. Packing can reduce transmission costs by 90%.

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Preliminary CDS/CB Assumptions  
and Cost Approaches

1. State Participation

- . All states will begin CDS implementation by 1978.
- . Each state will complete its CDS development within six years of start.

2. Costing Time Horizon

- . From May, 1972, until all states have reached a status of "full development" within the six-year limit.
- . Cost estimates will be adjusted for predicted inflation.

3. State Cost Estimation and Presentation

- . Costs will be estimated state by state.
- . Costs will not necessarily be presented by state.  
(Perhaps a quartile classification scheme using population and crime volumes as determinants might be used.)

4. LEAA Funding

- . Will continue for the full period of development.
- . Each participating state will receive funding throughout its development.

5. Identification Upgrading Costs

- . Will not be included in national CDS estimates.

6. CCH Record Conversion Costs

- . The CCH/OBTS Prototype features one-time name index automation and a first-offender record automation policy; historical conversion costs will not be included.
- . Historical conversion is assumed to continue in those states that have begun such conversion.



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7. CCH and OBTS Costs in States Already in Development
  - . Actual costs will be used whenever possible.
  - . Continuation level of expenditures will be assumed.
8. CCH Costs in All Other States
  - . Will be estimated for full participation on the basis of the CCH/OBTS prototype plus development costs observed in the study states.
  - . Participation by less than computer-to-computer (CCH) interface (e.g., NCIC Levels 2 and 3) will be assumed for less populous, small volume states.
9. OBTS Costs in All Other States
  - . Will be estimated on the basis of the prototype.
  - . Less populous states will be assumed to use statistical sampling.
10. Cost Approach for UCR
  - . Will be a summary data collection procedure -- meeting minimum UCR requirements except where transactional systems exist.
11. Cost Approach for SAC, MAS, TA
  - . Observed LEAA and study-state funding practices will be extrapolated.

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Tentative CDS/Cost Benefit Final Report Outline  
(As of October 1, 1974)

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CCH PROTOTYPE, NARRATIVE DESCRIPTION  
(Current Technology/Single State-Multi State)

General Description

This prototype represents medium-speed response, within current levels of technology. It assumes the prior development of identification capability at the state level, with an automated master name index and additional criminal history data in a central file. Specifically, the state file contains: (1) on-line criminal summaries for use in investigative checks and (2) criminal histories for use in response to arrestee fingerprint cards. The national file contains: (1) on-line criminal summaries, (2) off-line criminal histories for multi-state offenders, and (3) a pointer for single-state offenders.

By criminal history, we mean the full record as defined in the publication Criminal Justice System Standards and Goals. By criminal summary, we mean the identification segment of CCH and a "tally" of arrests and convictions by type of crime. By pointer, we mean the identification segment as defined in the Standards and Goals. Consequently, the master name index data and pointer data are identical. One byte is added to the identification segment, indicating whether the offender is a multi-state or federal offender, or neither.

Identification response is medium-speed, based on mail submission of fingerprints at arrest. Criminal histories are assumed to be printed in hard copy form by state-level computer, in batch mode at off-peak hours. Mandatory disposition data is assumed to be submitted to the state identification bureau (SIB) directly from the responsible agency.

Only those arrestee fingerprints not identified at the state identification bureau are forwarded to the FBI.

62-115930-6  
ENCLOSURE

The following conversion policies are assumed. An automated name index is created containing the standard Identification Segment for all subjects in the manual index as of "Day-One." This provides real-time "Yes-No" response capability to remote inquiries concerning prior offenders. After "Day-One," a first-arrestee fingerprint card will trigger creation of an automated identification segment and arrest segment. No conversion of historical records will take place. Receipt of non-arrest CCH segment data will trigger conversion of all data in the manual file on the offender for the current arrest cycle. Furthermore, a query to NCIC will be made on the arrestee. If an NCIC record is found, indicating that he is a multi-state offender, then all data pertaining to the current arrest cycle will be forwarded to NCIC/CCH. At the FBI, a similar "first-offender" conversion process takes place. The FBI is assumed to automate the records of only new arrestees and subsequent arrests of subjects whose records have already been converted.

#### Cost Assumptions

To construct a cost model for the prototype, a number of assumptions are necessary. Some of these simplify the modeling process by excluding from consideration details with a negligible cost impact. Others define the scope of the study by excluding certain non-negligible costs, e.g., identification upgrade. Still others concern future plans of interested parties, e.g., LEAA, FBI, CDS participants to date, non-CDS states and drafters of security and privacy legislation. All these groups can substantially affect CDS costs, so any projection has to be conditional on their assumed future plans.

(1) Criteria and Non-Criteria Arrests: Costs are ignored for arrests not meeting NCIC criteria. This includes the costs of data entry, data storage, transmission, etc. Even though a state may keep data on non-criterion offenses in the same file as criterion offenses, the costs associated with those record-keeping activities are not mandated by the CCH program. Therefore, they will not be included as a CCH cost.

(2) Participating and Non-Participating States; Eligible and Ineligible Costs:

-- A "participating state" is one that contributes computerized criminal histories (CCH) to NCIC/CCH. It must have a centralized state identification bureau (SIB) that processes fingerprint cards (FPC's) for all NCIC criterion offense arrests.

-- Arrestees for NCIC criterion offenses are assumed to be fingerprinted by the arresting or booking agency and both sides of the two FPC's are filled out. These law enforcement costs are not part of CCH.

The cost of transmitting two FPC's to a participating state's SIB is a CCH cost. It is assumed that the SIB will search its files (name and print files); if the inquiry results in a "hit" (a person already in file), one FPC is filed, the other destroyed. In a "no-hit" situation, one FPC would be forwarded to the FBI and the second retained at the SIB.

-- A "non-participating state" is one that does not contribute records to NCIC/CCH and (generally) does not have a mandatory fingerprinting law and a full identification capability. Identification costs incidental to full CCH participation included is a CCH cost; however, upgrade of identification capability is not included.

-- In non-participating states, the cost of transmitting one FPC from the arresting agency (ORI) to the FBI is included as a CCH cost, because it is necessary for creation by NCIC of a CCH record for the arrestee.

-- SIB processing in a non-participating state is not a CCH cost.

-- SIB processing in a participating state is a CCH cost to the extent that it processes NCIC criterion offenses.

(3) Federal Offenses and Federal Arrests: Upon arrest for a federal offense, the arrestee is assumed to be fingerprinted by a federal arresting agency, which submits the FPC to FBI/Ident. FBI/Ident processes the FPC as if the subject had been arrested for violation of a state offense. Data from the reverse side of the FPC is entered as the arrest segment of an NCIC/CCH record by the CCH unit of NCIC. It is assumed that data for the other CCH segments (post-arrest) are currently being collected by the Administrative Office of the U.S. Courts and entered by NCIC/CCH. These costs are included in the operating costs of CCH. The cost of transmitting data on arrests for federal offenses to the states is also included as a CCH operating cost.

(4) Post-arrest Segments: It is assumed that data for the judicial, supplemental, and custody/supervision segments of CCH is currently being collected and processed for all NCIC criterion offenses in all states. However, entry and transmission of these data to the SIB and the costs of linking it to a SIB record would be CCH costs.

(5) Investigative Name Checks: The cost of an investigative name check is a CCH cost if it is handled by NCIC or NCIC/CCH, but not if it is done by FBI/Ident. However, notation on the rap sheet of the existence of an automated NCIC record could result in a query to NCIC by FBI number,



in order to procure the automated information. The cost of processing that query is counted as a CCH cost.

(6) Name and Technical Search Automation: Technical search automation is independent of CCH development for both the FBI and the states. Therefore, development costs are not included in CCH costs, nor is automated print search assumed in the prototype.

Automated name search capability currently exists in NCIC/CCH. Therefore, its development costs are not included in the national estimate of future CCH costs; but the unit cost for NCIC name search is computed using the automated procedure.

Under the assumed first-offender conversion policy for the states, automation of the manual name index for remote access is essential to provide on-line responses to investigative name checks, for a large segment of the file. Therefore, states are assumed to convert their name index as of "Day One." This cost is included in CCH costs for those states which currently lack this capability.

Automated name search capability in FBI/Ident. is independent of CCH. Therefore, neither costs nor benefits of this capability are included in CCH.

(7) Dissemination of Pointer Information: Security and Privacy legislation prohibits (it is assumed) interstate dissemination of arrest records more than 12 months old without either a disposition or the indication of a pending disposition. This prohibition does not apply to the identification segment, which forms the pointer to single state offenders.

## Operating Responsibilities

The prototype's specifications include the following agencies as participants:

- Local law enforcement agencies in participating states.
- State identification bureaus in participating states.
- FBI/Identification Division.
- FBI/NCIC (the NCIC/CCH unit).
- Other agencies of the criminal justice system in participating states, e.g., courts, corrections, etc.

These participating agencies are recognized as having certain authority and responsibilities in the CCH program. These are allocated as follows:

- (1) Local law enforcement agencies (ORI's) in participating states.
  - (a) Responsibility to complete two FPC's per NCIC criterion offender, and to transmit both sides of both cards to the SIB.
  - (b) The authority to do investigative name checks at the SIB and NCIC, to receive manual rap sheets, criminal summary and pointer responses and automated criminal histories upon request.
- (2) State Identification Bureau.
  - (a) Responsibility for positive identification of all persons arrested for criterion offenses by instate ORI's and maintaining records of their prior instate arrests for non-federal offenses.
  - (b) Responsibility for purging records simultaneously with NCIC, and notification of NCIC for purges done on their own (non-NCIC) initiative.
  - (c) Storage of one FPC per criterion arrestee, and submission of unidentified arrestee FPC's to the FBI.

(d) Responsibility to respond to all investigative checks for local agencies within the state (real-time, on-line criminal summary or no-hit response on original inquiry; off-line mailed criminal history upon request).

(e) Relay of requests for data from criminal justice agencies within the state to the FBI (investigative requests, arrestee FPC's, and queries for full histories; and relay of FBI responses to instate criminal justice agencies, criminal summaries, pointer responses, and criminal histories).

(f) Responsibility for submission to NCIC of the entire state CCH record on a subject subsequently arrested in another state, updating this record at NCIC on all subsequent activity in the first state.

(g) Responsibility for the entry of all CCH data related to instate arrests for non federal offenses meeting NCIC criteria.

(3) FBI/Identification Division.

(a) Responsibility for maintenance of a national master fingerprint file.

(b) Positive identification of all federal offenders and subjects of FPC's received from SIB's, producing either a new FBI number or a manual rap sheet.

(4) NCIC/CCH.

(a) Responsibility to enter all available CCH data for non-participating states.

(b) Responsibility to respond to all requests from SIB's: no hit, pointer, or criminal summary on-line real-time for arrestee FPC's; the same responses for investigative name checks; and criminal histories on request by FBI number, off-line.

- (c) Responsibility to request all state CCH data on NCIC criterion offenses when a record is identified by FBI/Ident, indicating that the subject of one of the state's records has been arrested either in another state or by a federal agency (i.e., when a single state offender becomes multi-state).

Appendix: Prototype Activity Descriptions

1.0 Local law enforcement agencies.

1.1 Mail fingerprint cards, one mailing per day, postage paid by SIB.

(Summary) 1.1.1 One to FBI/Ident if in a non-participating state.

(Summary) 1.1.2 Two to SIB if in a participating state.

2.0 State Identification Bureau.

2.1 Receive, sort, and screen arrestee FPC.

(Open mail, log in FPC's, screen for logic, completeness, and legibility. Assign priorities for processing. Assign primary fingerprint class for use in name search. Sort for routing.)

(A) 2.1.1 Upon arrest in participating state for NCIC criterion offense.

2.2 Automated Name Search.

(Arguments: Last Name (Standard Soundex), Day of Birth, Month of Birth, Sex, Fingerprint Preclass. Ref.: SEARCH Tech. 8, p. 107. Returns ID Segment plus fingerprint classification used for storage of master FPC file, if not NCIC.)

(A) 2.2.1 (a) Incoming FPC's.

(b) FPC's failing technical verification (2.6.1).

2.3 Fingerprint Technical Search.

(Develop full fingerprint classification for search, and full NCIC classification. Retrieve matching master FPC, if any, from file; send both to verifier. To 2.4.1 if no hit.)

(A) 2.3.1 For all arrestee FPC's not hit in name search.

## 2.4 Response to ORI.

(Send, via mail, a notification of the results of the identification process.)

- (A) 2.4.1 No Hit Response. When technical search at the state level fails to produce an identification, send an "arrestee unknown in state" message plus a newly assigned State Identification Number (SID No.) to the ORI.
- (B) 2.4.2 Mail print-out of criminal history from CCH data base following CCH update from source within state.
- (C) 2.4.13 Mail RAP sheet following manual update of the RAP sheet for subjects not selected for entry into CCH.

## 2.5 File and Mail Fingerprint Cards.

(File one card in the State Master Fingerprint File, mail the second card to the FBI.) (NOTE: Unresolved Issue. First arrest FPC becomes a master for the subject in the master fingerprint file. What should be done with subsequent arrest cards for an automated subject. Should they be destroyed? There is no manual case jacket and they should not clutter up the master file.)

- (A) 2.5.1 File and Mail following failure to produce an identification in technical search.
- (C) 2.5.2 File and Mail following manual update of the rap sheet for subjects not selected for entry into CCH.

## 2.6 Verify Incoming FPC With Master FPC.

(For tentative hits, incoming and master FPC's are compared and verified, and master FPC returned to file.)

- (A) 2.6.1 Performed for automated namesearch hits and fingerprint technical search hits.

## 2.7 Update State CCH Data Base

Description awaiting resolution of unresolved issues #B-1 and B-2.

## 2.8 Update NCIC/CCH Data Base.

(Execute a re-formatting program to retrieve from the SIB data base a segment to be transmitted to NCIC; reformat the record in NCIC/CCH format; transmit the record and, if the transmission is rejected by NCIC, print the rejection message.)

- (B) 2.8.1 Transmit new arrest cycle after SIB entry of an arrest cycle for an offender known to be multistate. (At present this activity requires a prior inquiry to NCIC to retrieve a current full multistate history for the subject.)

- (E) 2.8.6 Transmit new identification segment after creating a new single-state offender record in the state CCH data base.

## 2.9 Activate Disposition Tracking Monitor.

(When an arrest entry has been made to CCH which requires a subsequent disposition entry, a disposition tracking monitor is activated for the subject. Subsequent batch processing will produce periodic deficiency notices until needed dispositions are provided.)

- (B) 2.9.1 Activate monitor after entry of a new arrest cycle in the SIB/CCH data base.

- (E) 2.9.3 Activate monitor after creating a new single-state subject record.

## 2.15 Establish Temporary State CCH Record.

(Create an automated CCH record containing current cycle identification and arrest information, but lacking an FBI number.)

- (A) 2.15.1 Produce a temporary record upon failure to identify an arrestee at the SID.

## 2.16 Update Manual Criminal History (RAP Sheet).

(Arrests which are not entered into CCH, because of the applicable conversion policy in force, will be typed on the existing RAP sheet. This activity includes the retrieval of the subject's case jacket, update of the RAP sheet, and preparation of the required number of copies.)

- (C) 2.16.1 Update RAP sheet with arrest data for prior offenders with no NCIC/CCH record.

## 3.2 Receive, Screen, and Sort Incoming Arrestee Fingerprint Cards.

(Incoming mail is opened and screened. Print cards are screened to determine that sufficient information is given to permit a search to be performed. Print cards from ORI's in active states are rejected. They are grouped to facilitate processing (e.g., by sex, age, etc.), marked with primary fingerprint class, logged, counted, and tagged to indicate processing priority.)

- (D) 3.2.1 Receive FPC from ORI in non-active states.
- (D) 3.2.2 Receive FPC from SIB in active state following inability to make an identification.
- (D) 3.2.3 Receive FPC from SIB in active state following update of manual history record (for update of FBI manual files).



### 3.3 Manual Namesearch.

(Sort FPC's by name group, perform search; on a probable hit note on the FPC the FBI No., full fingerprint classification, and whether it is already in NCIC/CCH. For all namesearch hits sort by fingerprint class and pull master prints from master fingerprint file.)

- (D) 3.3.1 Perform search on all incoming arrest print cards.
- (D) 3.3.2 When namesearch hits fail verification they are returned to namesearch for selection of possible alternative names. If likely alternatives are available the new tentative "namesearch-hit" is sent to verification. If alternatives are not available the FPC is classified as a "no-hit."

### 3.4 Fingerprint Technical Search.

(Sort FPC's by primary fingerprint class, distribute to technicians, and perform search. Pull master print on hit.)

- (D) 3.4.1 Perform technical search for all arrestee FPC's not hit during namesearch.

### 3.5 Verify FPC Against Master.

(An independent comparison is made between the in-process FPC and the master FPC. Following verification the master FPC is re-filed.)

- (D) 3.5.1 Verify all arrestee FPC's following tentative namesearch hit or technical search hit.

### 3.6 Assign FBI Number and File FPC.

(Assign a new FBI number to the subject, create a new name-index record, and file the FPC in the master FPC file.)

- (D) 3.6.1 Perform for all arrestee FPC's for which no identification can be made.

### 3.7 Mail Manual RAP Sheet Updated With Current Arrest Activity.

(Pull history jacket, update RAP sheet with arrest data from FPC, make copy of RAP sheet, place new FPC in jacket, re-file jacket, and mail RAP sheet.)

- (D) 3.7.1 Sent to SIB and ORI for all verified arrestee identifications.

### 3.8 Send Copy of Fingerprint Card to NCIC/CCH.

(Send xerox copy of FPC to NCIC/CCH for update of NCIC/CCH data base.)

- (D) 3.8.1 Send for all identifications made for inactive states on subjects who already have records in NCIC/CCH.

- (D) 3.9 Send No-Hit Message to SIB and ORI.

3.9.1 Send for all arrestee FPC's for which no identification can be made.

### 4.1 Update NCIC/CCH Data Base.

- (I) 4.1.1 Update NCIC/CCH data base with a new arrest segment in 1) a multi-state offender record or 2) a single-state offender record now becoming multi-state. This occurs following the update of the state CCH data base and transmission to NCIC of a re-formatted arrest segment.

- (I) 4.1.2 Enter a multi-cycle subject history for a previous single-state record, newly changed to multi-state status by the entry of an other-state arrest segment in activity 4.1.1 above. (Manual intervention will be required at present.)

### 4.2 Activate Outstanding Disposition Status in NCIC/CCH Disposition Monitor.

(This narrative is in development)

#### 4.4 Request Full History Record from SIB.

- (I) 4.4.1 Request Full History Record from initial single-state record holder following a change to multi-state status by the entry of an other-state arrest segment. This record will be used in activity 4.1.2 to format a complete multi-state record.

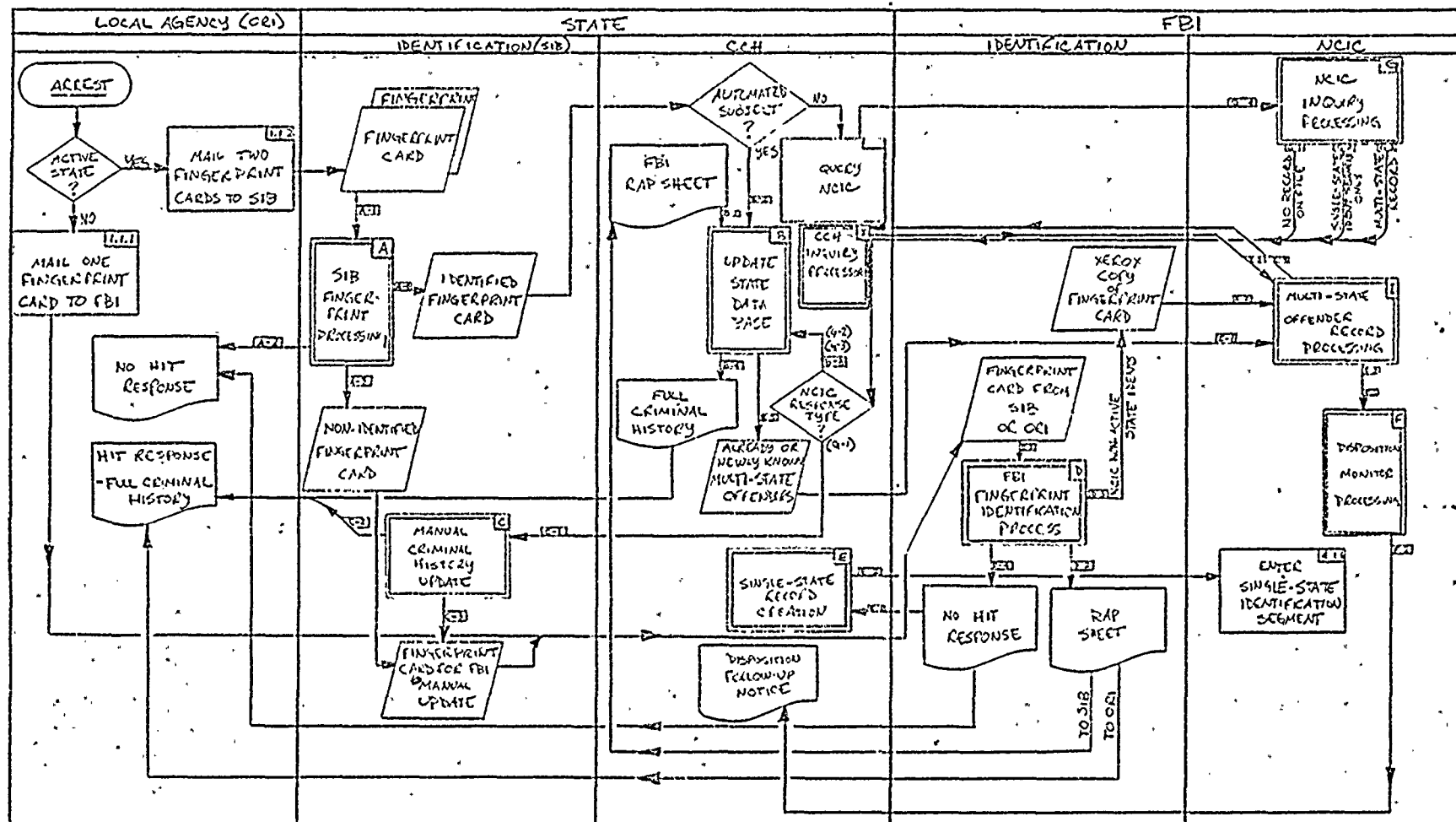
#### 4.5 Enter Arrest Segment in NCIC/CCH Data Base.

(Perform coding, data-entry, and data base update operations required to enter, from a fingerprint card, a new arrest segment in the NCIC/CCH data base.)

- (I) 4.5.1 Enter arrest segment in pre-existing multi-state record when an arrest is made in a non-active state.

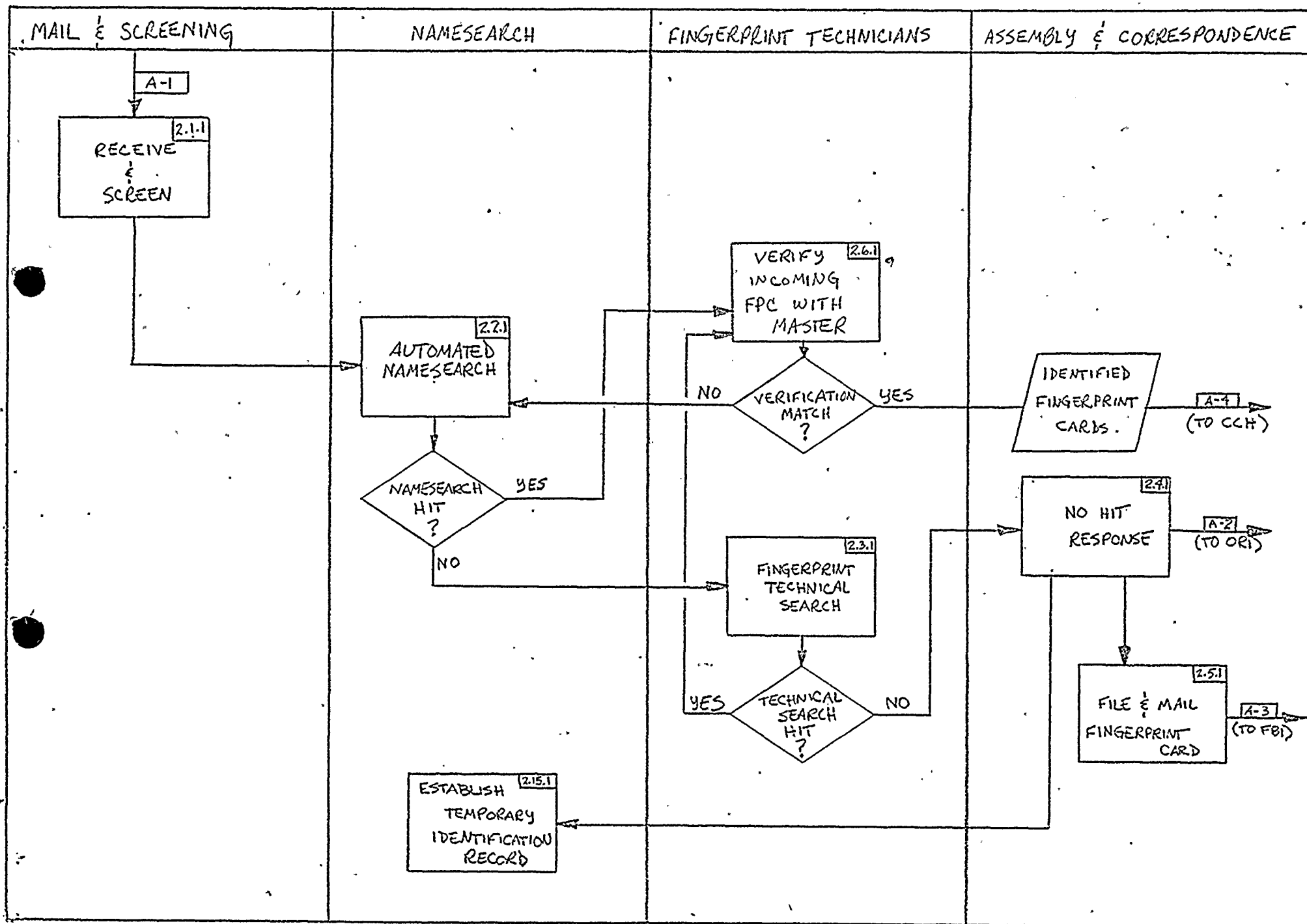
# CCH/OBTS PROTOTYPE: CCH ARRESTEE PROCESSING (SUMMARY)

10/15/74

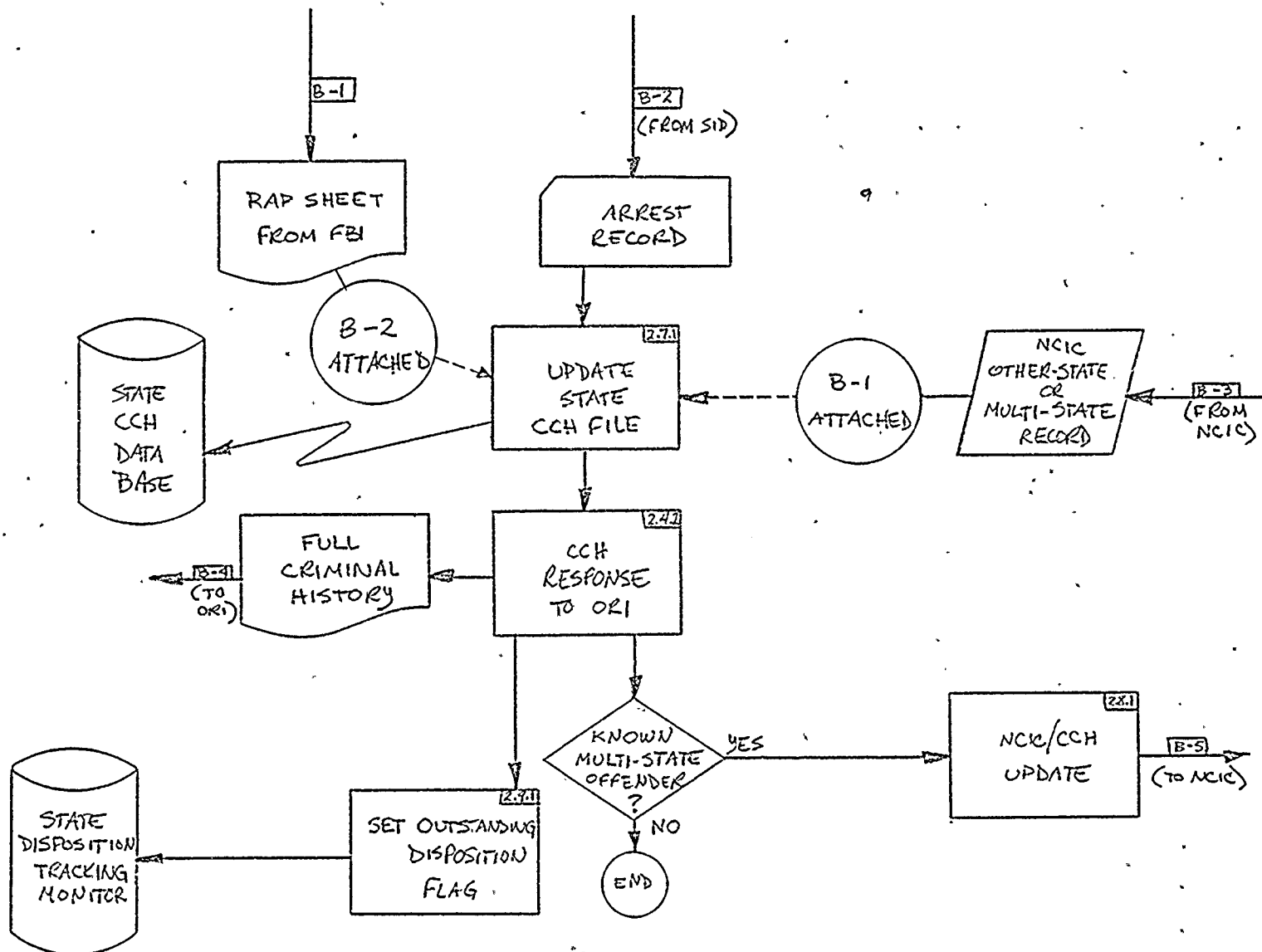


# CHART A - SIB FINGERPRINT PROCESSING

10/15/74



# CHART B - UPDATE STATE CCH DATA BASE



10/9/74

Unresolved Procedure

Condition: Prior offender in manual state system is found, upon query to NCIC, to have an NCIC other-state, or multi-state record.

Which Action Should Follow?

1. Update manual state file and update NCIC with arrest segment.
2. Create automated state record and update NCIC.
3. Create automated state record, convert prior manual in-state history, and update NCIC with multiple arrest segments.

NOTE: Number 1 imposes a cost on the state with no immediate benefit to the state. Number 2 leaves the state record split between manual and automated systems. Number 3 imposes a high cost and probability of incorporating inaccurate data inherent in converting manual histories.

October 9, 1974

Unresolved Procedure

Condition: FBI rap sheet returned to SIB identifying new offender in that state, with prior offense(s) in another state(s), but no NCIC record established.

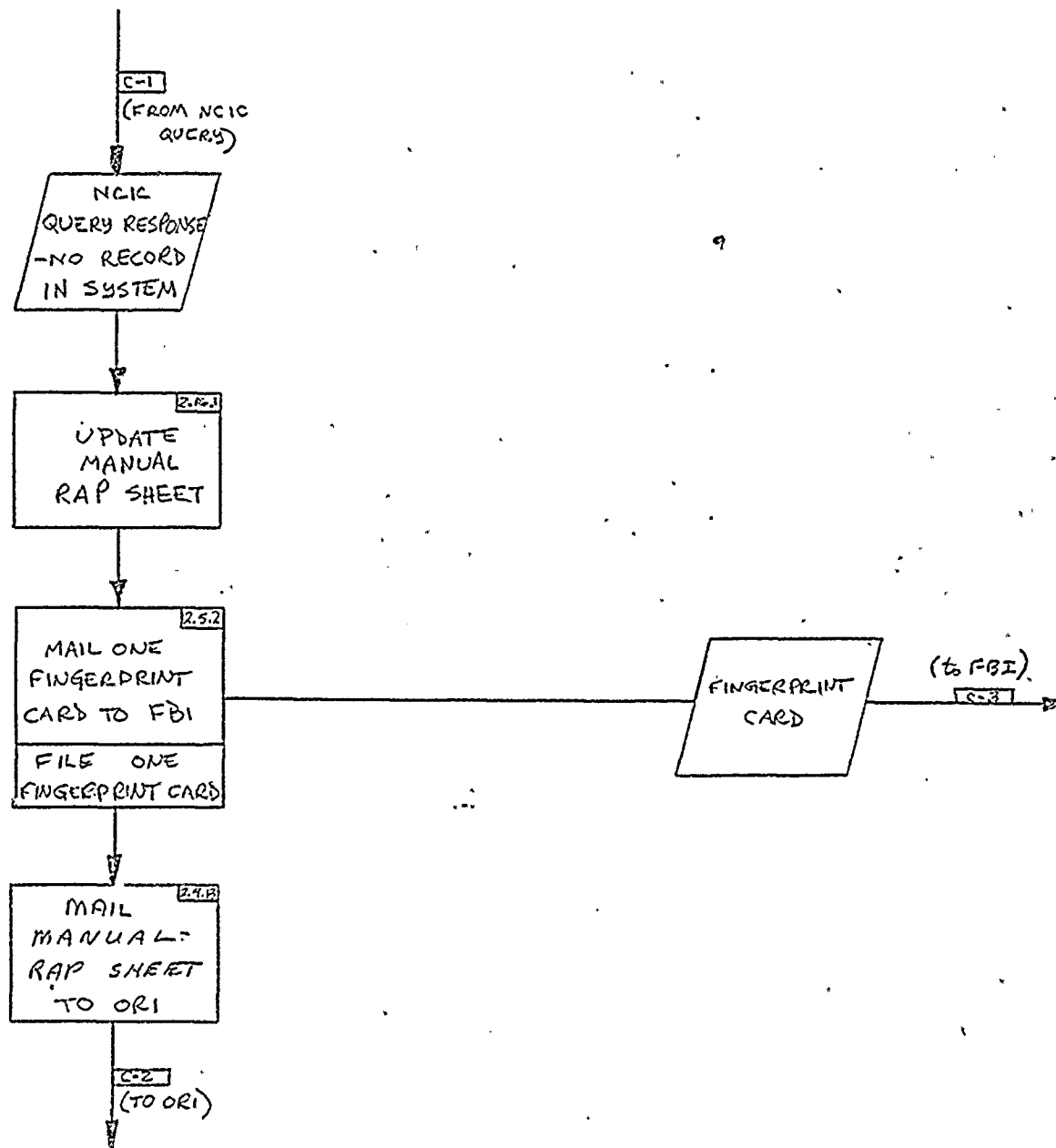
Which action should follow?

1. State automates new offender record in its own CCH but does not place pointer in NCIC.
2. State automates record and places pointer in NCIC.
3. State automates record, converts out-of-state prior offense record, and enters multi-state record in NCIC.

NOTE: Procedure No. 1 assumes that no jurisdiction will be willing to convert the prior offenses; No. 2 assumes that NCIC will accept the task of converting the prior record. No 3 assumes that the state of current arrest will accept the responsibility for converting a record of arrest(s) in other state(s).



CHART C- MANUAL RAP SHEET UPDATE AT STATE SIB  
(PREVIOUS OFFENDER WITH NO MULTI-STATE RECORD)



# CHART D - FBI FINGERPRINT IDENTIFICATION

10/15/74

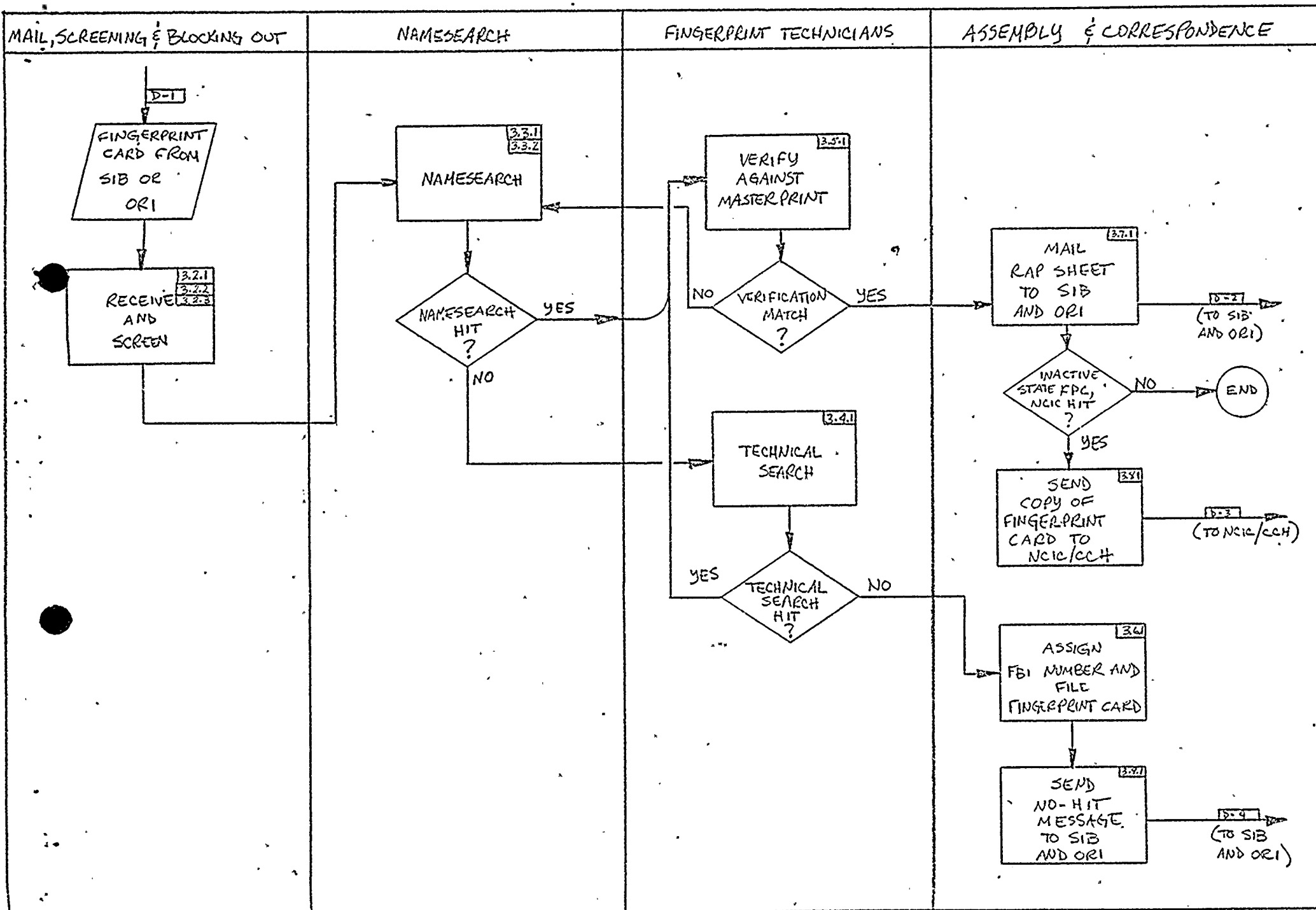


CHART E - SINGLE-STATE RECORD CREATION AT STATE CCH UNIT

10/15/74

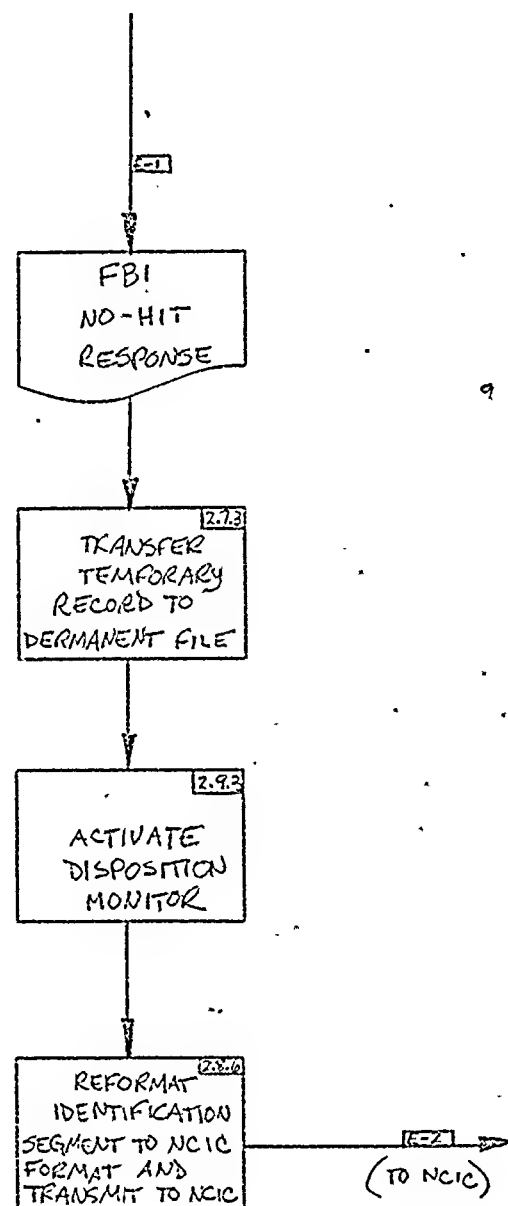
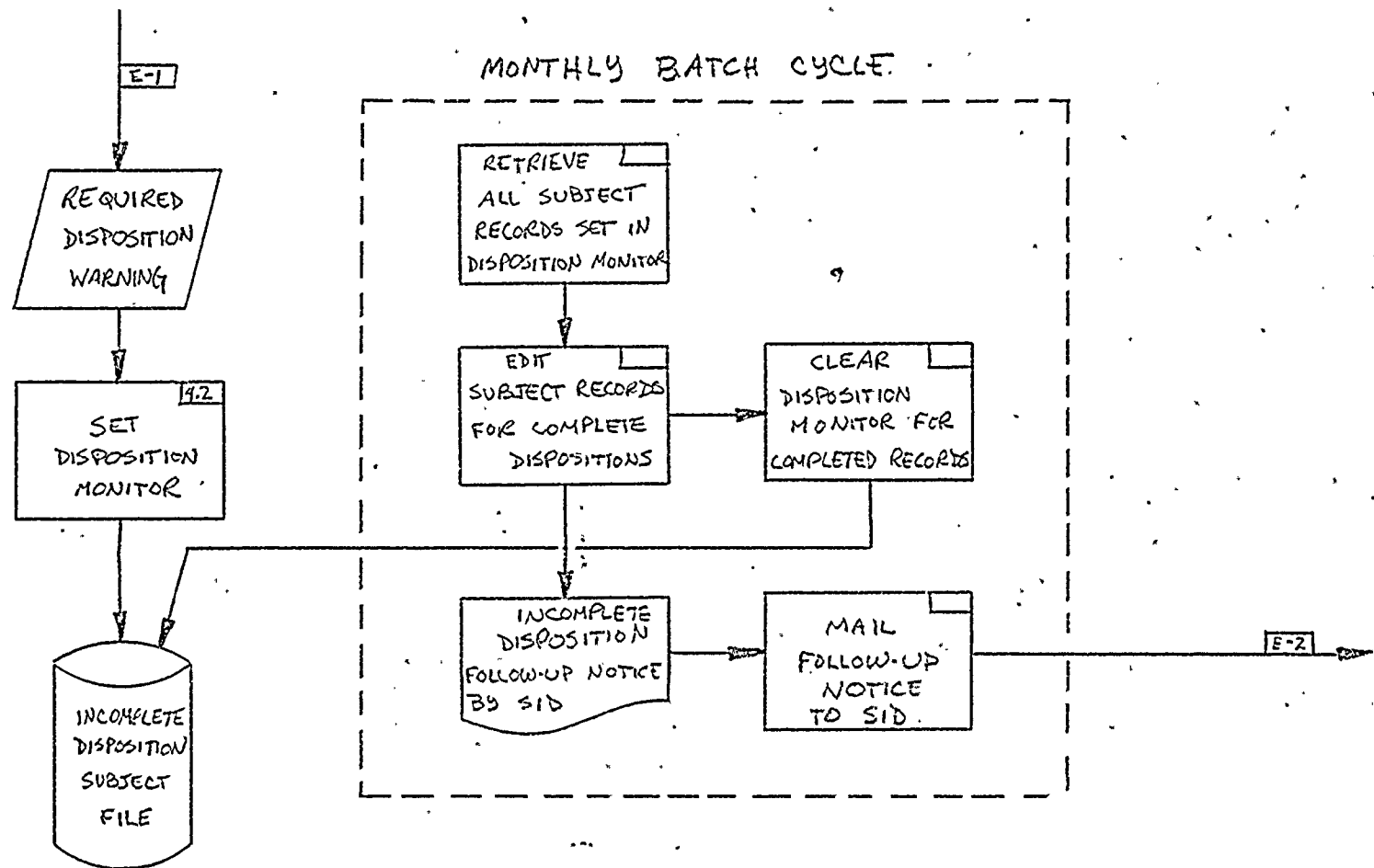
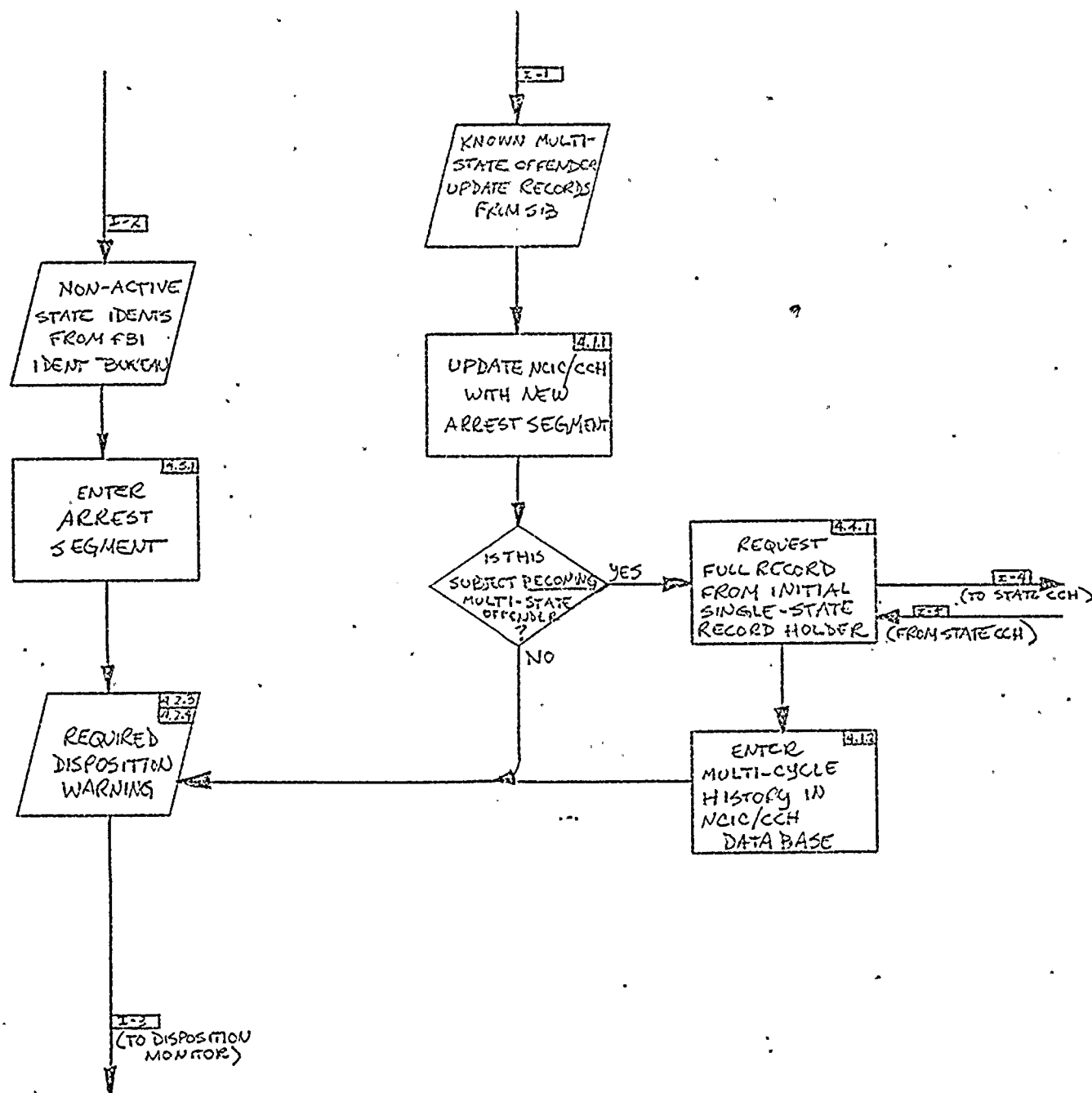


CHART F - DISPOSITION MONITOR PROCESSING AT NCIC



# CHART I - MULTI-STATE OFFENDER RECORD PROCESSING AT NCK

10/15/74



UNITED STATES GOVERNMENT

# Memorandum

TO : Mr. Decker

DATE: 4/1/75

FROM :

SUBJECT: DRAFT COPY OF COMPREHENSIVE DATA SYSTEM (CDS)  
COST AND BENEFIT STUDY EXECUTIVE SUMMARY  
PREPARED FOR LEAA BY THE INSTITUTE FOR LAW  
AND SOCIAL RESEARCH (ILSR)

Assoc. Dir. ☐  
Dep. Asst. Dir. ☐  
Dep. Asst. Dir. ☐  
Asst. Dir. ☐  
Ext. Affairs ☐  
Files & Com. ☐  
Gen. Inv. ☐  
Ident. ☐  
Inspection ☐  
Intell. ☐  
Laboratory ☐  
Plan. & Eval. ☐  
Spec. Inv. ☐  
Training ☐  
Legal Coun. ☐  
Telephone Rm. ☐  
Director Sec'y ☐

Attached is a copy of the captioned summary report, the results of a page-by-page review of the report by the Computer Systems Division, and a letter for the Director's signature transmitting our comments on the report to the ILSR as they requested.

On March 25, 1975, the ILSR provided the Computer Systems Division with draft copies of a summary report showing the results of a study, funded by LEAA, which they conducted concerning the costs and benefits of the CDS. They requested that we review the report and provide them with any comments we might wish to make. The study relates in part to our ongoing Computerized Criminal History (CCH) and Uniform Crime Reporting (UCR) programs. Our review identified numerous areas of the study which appear to require amplification, clarification, correction, or deletion with regard to both our CCH and UCR programs. Details of the summary which are of particular concern to the FBI include the inaccurate estimates of future CCH costs attributable to the FBI; the misrepresentation of the true costs of a national Offender-Based Transaction Statistics (OBTS) program; and the distorted comparison of OBTS and CCH with respect to cost, benefits, and negative effects. Our comments are being forwarded for consideration by the Institute and possible incorporation in their finalized report.

## RECOMMENDATION:

to the ILSR:

That the enclosed letter and attachment be forwarded

1 - ☐  
1 - ☐  
1 - Mr. Decker

1 - ☐  
1 - ☐

5 APR 14 1975

56 APR 22 1975

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b6  
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DRAFT

Rev. 3/20/75

CDS COST AND BENEFIT STUDY  
EXECUTIVE SUMMARY

Prepared For  
The Law Enforcement Assistance Administration

Prepared by  
The Institute for Law and Social Research  
1125 15th Street, N.W. Suite 625  
Washington, DC 20005

March 1975

ENCLOSURE

62-115930-7

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## 1. INTRODUCTION

A Comprehensive Data System Cost and Benefit Study was undertaken by the Institute for Law and Social Research, Washington, D.C., for the Law Enforcement Assistance Administration, Department of Justice.

The objective of the study was to project the cost and benefits of the Comprehensive Data System (CDS). Emphasis was given to the cost and benefits of the interstate exchange of criminal histories, or Computerized Criminal History (CCH) program.

This study identified potential benefits which justify the development, in some form, of both the criminal history and statistical components of the CDS program. However, the cost estimate of \$555.7 million through 1984 is significantly in excess of planned funding levels. These costs, in the opinion of the project team, are higher than necessary to achieve the anticipated benefits.

Costs somewhat below or significantly above the level projected in this study, however, may actually be experienced depending on future CDS policies. A secondary purpose of this study, then, became the identification of policies which can be altered to reduce the cost of the CDS program.

This executive summary presents a background description of the CDS program, summary descriptions of projected cost and benefits of the CDS program and its components, and a discussion of the policy issues which should be studied for improved cost-effectiveness.

### Background

As an outgrowth of the impetus given to the development of criminal justice information systems by the Omnibus Crime Control and Safe Streets Act of 1968, LEAA conducted a review of state criminal justice information system capabilities in 1969 and concluded that a uniform format for criminal history records would facilitate both the interstate exchange of such records and the compilation of comparable criminal statistical data.

Also in 1969, LEAA launched Project SEARCH (System for Electronic Analysis and Retrieval of Criminal Histories) with the dual purpose of developing a prototype system for the interstate exchange of criminal history data and of enhancing state criminal history capabilities. After Project SEARCH had demonstrated the feasibility of a criminal history exchange system the Attorney General, in late 1970, authorized the FBI to manage such a system.

Currently, the FBI's computerized National Crime Information Center (NCIC) maintains, and responds to state inquiries about, criminal history records of Federal, multistate, and single-state offenders whose records have been entered in the system. This CCH capability of NCIC is, in essence, an improved and automated rap sheet which can be accessed in a matter of seconds.

Concurrent with efforts to develop CCH, LEAA initiated a project to develop a state-level, computer-based method of recording key events relating to persons as they pass through the criminal justice system. Called Offender-Based Transaction Statistics (OBTS), the automated system is expected to be as informative about criminal justice operations as CCH is about suspects and criminals.

### Onset of CDS

In 1972, the CDS program was announced by LEAA as a major milestone in its commitment to improve state and local criminal justice statistical and information system capabilities. Explicit in the program guidelines<sup>1/</sup> was the goal of a voluntary state system, integrated to provide, without unnecessary duplication, both a national criminal history exchange capability and national criminal justice statistics.

To support this goal, CDS included an OBTS/CCH component, linking those two projects to a common data base. In addition, the program included four other components described in the following paragraphs.

Statistical Analysis Center (SAC). The purpose of SAC is to provide a professional staff that will oversee and coordinate a state's criminal justice information and statistical systems; specify data requirements and insure quality control of data collection; coordinate technical assistance to agencies participating in CDS development; supply objective, interpretative analyses of criminal justice data to appropriate agencies; and report criminal justice data accurately and uniformly for national-level comparisons.

Uniform Crime Reports (UCR). The goal of UCR is to establish responsibility in a state-level agency for the centralized collection and reporting of uniform crime data gathered by law enforcement agencies within the state in accordance with standards developed jointly by the FBI and the International Association of Chiefs of Police. The state agency then forwards the collected data to the FBI for inclusion in its national UCR reports.

Management and Administrative Statistics (MAS). This CDS component is intended to improve the effectiveness of criminal justice resource allocation by collecting and analyzing data pertaining to the financial status, personnel, facilities, and equipment of the various criminal justice functions at the state and local levels.

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<sup>1/</sup>Law Enforcement Assistance Administration, Guideline Manual: Comprehensive Data Systems Program, Washington, D.C., rev. 1974, p. 3.

Technical Assistance (TA/CDS). The objective of TA is to provide state-level professional and technical capabilities needed to develop a CDS.

#### Current Status of CDS

Since its inception in May, 1972, 35 states have indicated a willingness to become part of CDS: to accept CDS funding on the one hand and to agree to regulations regarding the various components; their development, and assumption of future funding. The states participating are indicated in Exhibit 1 by a check under the CDS Action Plan column.

As of February 1975, 29 states had received CDS grants for one or more components. Exhibit 1 also reveals grant awards to states for each component. (Component funding from other sources is not shown. For example, Florida's CCH system, developed with limited funding from Project SEARCH and major funding from state appropriations, became operational in 1972. Although operational, Florida has not received CDS funding for OBTS/CCH.) Twenty-two states have received funding to establish SAC's; 17 states have received one or more awards for OBTS/CCH; 21 have UCR funding; and 6 and 7 have received MAS and TA/CDS grants, respectively.

#### GAO Observations

Regarding the development of a criminal history exchange system, the General Accounting Office (GAO) issued a report<sup>2/</sup> which concluded that cost estimates of a project of this size were needed before the sponsoring Federal agencies or the Congress could decide whether they were able or willing to meet the financial requirements of the system. Further, since state and local governments were to assume project costs after a reasonable period of Federal assistance, it was vital that they have the information necessary to determine whether they could finance the development and continued operation of the system.

Thus, GAO recommended that either the FBI or LEAA "determine the total cost of developing and operating the criminal history exchange system so that the participants can decide whether they are able, or willing, to meet the system's financial requirements." This recommendation was foreshadowed by [redacted] who, as Commissioner of the Florida Department of Law Enforcement, presented a paper in 1972 at the International Symposium on Criminal Justice Information and Statistics Systems:

---

<sup>2/</sup>General Accounting Office, Development of a Nationwide Criminal Data Exchange System--Need to Determine Costs and Improve Reporting (Washington, D.C., Government Printing Office, January 1973).

	Action Plan	OBTS/ CCH	SAC	UCR	MAS	TA/ CDS
Alabama	✓		✓			
Alaska						
Arizona	✓	✓	✓	✓		✓
Arkansas	✓	✓	✓	✓		
California	✓	✓	✓	✓	✓	✓
Colorado	✓		✓			
Connecticut						
Delaware	✓					
District of Columbia	✓	✓	✓			
Florida	✓			✓		
Georgia	✓	✓	✓	✓		
Hawaii	✓		✓	✓		
Idaho	✓	✓		✓		
Illinois	✓					
Indiana	✓					
Iowa						
Kansas						
Kentucky						
Louisiana	✓	✓	✓	✓	✓	✓
Maine	✓	✓	✓	✓		
Maryland	✓	✓		✓		
Massachusetts	✓	✓	✓	✓		
Michigan	✓	✓		✓		
Minnesota	✓	✓	✓	✓		
Mississippi	✓		✓			
Missouri	✓	✓				

✓ PLAN APPROVAL  
OR GRANT AWARD

	Action Plan	OBTS/ CCH	SAC	UCR	MAS	TA/ CDS
Montana	✓		✓		✓	✓
Nebraska						
Nevada	✓		✓	✓	✓	✓
New Hampshire	✓					
New Jersey	✓	✓	✓	✓		
New Mexico	✓		✓			✓
New York	✓		✓	✓		
North Carolina						
North Dakota						
Ohio	✓	✓		✓		
Oklahoma	✓	✓	✓	✓	✓	✓
Oregon	✓		✓	✓		
Pennsylvania						
Puerto Rico						
Rhode Island	✓		✓			
South Carolina	✓					
South Dakota						
Tennessee						
Texas	✓					
Utah	✓	✓	✓	✓		
Vermont						
Virginia	✓			✓	✓	
Washington						
West Virginia						
Wisconsin						
Wyoming						
Totals	35	17	22	21	6	7

"The anticipated benefits from CCH-OBTS in providing documentation on the effectiveness of the criminal justice system are well worth the effort necessary for its development, implementation and operation. . . .

"However, these systems require a major expenditure of time, resources, and money while providing little visible signs of benefit in the short run. Criminal justice managers will be placed in the difficult position of going before legislatures to justify that CCH-OBTS returns are, in fact, worth the expenditure. The cost-utility relationship between the current and proposed systems will be given particular attention, for we are in an era of intense competition with other governmental services for the tax dollar."

These concerns with the quality of available cost projections for the interstate criminal history exchange had two major effects. First, it led to LEAA's initiation of the CDS Cost and Benefit Study and, second, to the recognition that it should produce reliable data to support policy decisions in the following areas:

- State-level predictions of the cost of criminal justice information system projects, especially CDS components.
- Federal-level assessment of the financial implications of the total CDS program.
- State-level assignment of system development priorities to maximize system benefits within resource constraints.
- State-level recognition of the benefits to be derived from a criminal justice information system.
- LEAA comparison of cost to results, affecting funding decisions and performance evaluations.

## 2. PROJECT APPROACH

The CDS Cost and Benefit Study was performed over a one-year period with approximately seven months devoted to field study and five months to analysis.

Field study entailed visits to the criminal justice agencies of eleven states, three regional areas, five municipalities, and the FBI. During the field study, the team investigated costs and procedures for:

- . The identification process;
- . Namesearch and fingerprint search methods;
- . Collection and entry of arrest data to OBTS and CCH;
- . Collection and entry of disposition data (arrest, judicial, corrections) to OBTS and CCH;
- . Conversion of criminal histories;
- . Storage of fingerprints and criminal histories;
- . Transmission of criminal histories, both inter- and intra-state; and
- . Interfaces with regional, local, judicial, and corrections information systems.

Preliminary analysis identified the need to automate the CCH cost calculations and the need to perform several support studies. Principal among these studies was an analysis of 6,300 manual criminal histories made available by the FBI. This analysis was made to determine the rate of growth of the number of offenders of each of several types which would exist in an automated criminal history data base (Appendix B, Cost and Benefit Study Report).

The CCH cost calculations were automated on a Tektronix, Model 31, programmable calculator. A detailed description of these calculations is given in Appendix A.1 of the Study Report. The calculations were made at the individual state level and were later summarized by population quintile for presentation in the report. No attempt was made to allocate these estimated costs between state, block grant, or CDS funding sources. The calculations can be rerun to estimate CCH cost under a variety of implementation assumptions. The CCH assumptions programmed for this report are described in Section 4 of this summary. General assumptions applicable to CDS cost estimation are discussed below.

### CDS Cost Estimation Assumptions

The following five assumptions governed the cost estimation process for all CDS components:

- . All states will implement all five CDS components.
- . Political or jurisdictional obstacles will not significantly delay implementation.
- . OBTS and CCH share a common data collection system.
- . UCR will be implemented according to FBI specifications.
- . SAC, MAS, and TA/CDS funding levels are controllable.

All states, Puerto Rico, and the District of Columbia (hereafter referred to as the 52 states) were assumed to build all five CDS components, excepting CCH in the District of Columbia which would continue to be handled by the FBI. Since they could reasonably be expected to complete CDS development by January 1, 1983, the estimates cover a 10-year period, 1975 to 1984. This time frame includes completion of the system and two years of purely operational and maintenance expense.

Political and jurisdictional obstacles that are currently delaying CCH development were not recognized in assessing cost and benefits. Participants were assumed to load criminal records at the completion of system development, to interface with the national index, to update records with 100 percent of NCIC/CCH criterion arrests on a timely basis, and to record dispositions linked to arrests for privacy and other considerations.

While OBTS was separated from CCH for analytical purposes, the two databases were assumed to be linked operationally by a centralized, single-entry, data collection procedure satisfying OBTS and CCH requirements simultaneously. OBTS development and operating costs were estimated as if states added OBTS data collection and report generation capabilities to existing CCH systems.

States receiving UCR funding under CDS were assumed to proceed according to the standard FBI implementation procedure and to produce a system to FBI specifications.



Funding policies for the SAC, MAS, and TA components were assumed to continue past practices. The highly controllable nature of expenditures for these components made an elaborate model unnecessary. However, the future cost of these components is very sensitive to changes in LEAA funding policies.

#### Cost Estimation Methodology

SAC, UCR, MAS, and TA/CDS costs were projected from a survey of grants already awarded to states. From this survey and consultations with the FBI concerning UCR, the LEAA funding policy for these components was inferred. The cost estimates were produced by extrapolating this policy to the remaining states over future years.

OBTS/CCH, with its relatively uncontrollable future financial requirements, demanded a more elaborate estimation effort. Field trips were made to 11 states where significant OBTS/CCH planning or implementation had taken place. During the field trips, information was collected on the designs of the systems, past and anticipated expenditures, telecommunications and computing equipment requirements, and personal services required for both the automated system and the manual system being replaced.

Based on the 11-state survey, OBTS/CCH cost elements were classified as either development or operating costs. Separate OBTS and CCH development cost estimates were made by extrapolating data from the study states to the remaining states.

To estimate OBTS/CCH operating costs, a model was constructed in the form of flowcharts and task descriptions, depicting state and Federal processing operations. Data from a sample of FBI manual criminal histories were used to establish a relationship between the annual volume for each task and arrest volumes predicted for 1975 through 1984. Unit costs for each task, adjusted for regional salary differentials, were used to convert processing volumes into CCH operating cost estimates by year.

Annual OBTS operating costs were estimated using the same model and were computed as the cost of augmenting the CCH data base with the required OBTS data. Development and operating estimates were combined to produce annual OBTS and CCH cost estimates.

### 3. CDS COST SUMMARY

Annual and total projected costs for the CDS program are shown in Exhibits 2 and 3. As shown in Exhibit 2, total cost to develop and operate the entire CDS program for the 10-year period 1975 to 1984 is estimated to be \$403.8 million, or \$555.7 million after adjusting for inflation. Annual CDS costs by 1984, after completion of development, are projected at \$47.5 million or \$77.0 million with adjustments for inflation.

CDS COMPONENT	CDS COST BY YEAR - CONSTANT (1975) \$ MILLIONS										Total Ten-Year Cost
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	
CCH	16.9	21.1	19.3	22.7	23.8	25.2	25.6	26.1	26.6	27.1	234.4
OBTS	1.0	2.2	3.2	4.5	4.2	4.3	4.5	4.0	3.4	3.6	34.9
UCR	4.3	4.9	5.6	6.2	6.8	7.6	8.3	8.1	8.1	8.1	68.0
OTHER:											
SAC	2.2	2.7	3.2	3.7	4.2	4.7	5.2	5.2	5.2	5.2	41.5
MAS	.3	.5	.8	1.0	1.2	1.4	1.7	1.7	1.7	1.7	12.0
TA/CDS	.4	.6	.8	1.1	1.3	1.6	1.8	1.8	1.8	1.8	13.0
Total CDS Program (Constant Dollars)	25.1	32.0	32.9	39.2	41.5	44.8	47.1	46.9	46.8	47.5	403.8

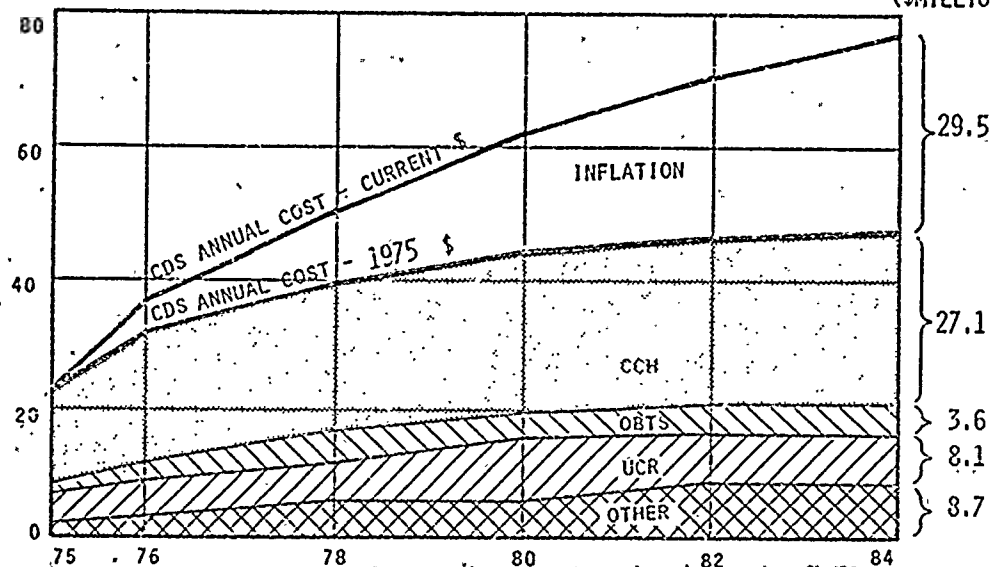
CDS COMPONENT	CDS COST BY YEAR - CURRENT \$ MILLIONS										Total Ten-Year Cost
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	
CCH	16.9	23.4	23.0	28.8	31.7	35.0	37.0	39.2	41.5	44.0	320.5
OBTS	1.0	2.4	3.8	5.7	5.6	6.0	6.5	6.0	5.3	5.8	48.1
UCR	4.3	5.4	6.7	7.9	9.1	10.5	12.0	12.2	12.6	13.1	93.8
Other:											
SAC	2.2	3.0	3.8	4.7	5.6	6.5	7.5	7.8	8.1	8.4	57.6
MAS	.3	.6	1.0	1.3	1.6	1.9	2.5	2.6	2.7	2.8	17.3
TA/CDS	.4	.7	1.0	1.4	1.7	2.2	2.6	2.7	2.8	2.9	18.4
Total CDS Program (Current Dollars)	25.1	35.5	39.3	49.8	55.3	62.1	68.1	70.5	73.0	77.0	555.7

EXHIBIT 2: CDS COST BY YEAR IN CONSTANT AND CURRENT DOLLARS

By 1981, CDS annual costs, measured in 1975 dollars, will have almost leveled off below \$50 million. The leveling shown in Exhibit 3 occurs because of the completion of development efforts and because the declining cost of computer and telecommunications technology partially offsets the small, continuing growth of personnel costs.

\$MILLIONS

1984  
ANNUAL  
COST  
(\$MILLIONS)



COST OF TOTAL CDS PROGRAM  
BY YEAR & CDS COMPONENT

	1984 OPERATIONAL COST (\$ MILLIONS)	
	CONSTANT (1975) DOLLARS	CURRENT (1984) DOLLARS
CCH	27.1	44.0
OBTS	3.6	5.8
SAC	5.2	8.4
UCR	8.1	13.1
MAS	1.7	2.8
TA/CDS	1.8	2.9
TOTAL	47.5	77.0

EXHIBIT 3: COST OF TOTAL CDS PROGRAM

The accuracy of this forecast depends upon modification of trends and policies which differ from two of the principal assumptions upon which the cost estimates were based. The areas of divergence from these two assumptions are discussed in the following paragraphs.

Medium-cost record conversion policy. This assumption, made in Section 4, expects a medium cost, "first-offender automation policy" for manual criminal history conversion. However, the more costly "re-entrant conversion policy" is presently in use in most states. If continued, this latter policy would more than double the OBTS/CCH personnel costs included in this estimate.

A specific timetable for CCH start-up in each of the 52 states. This assumption is also stated in Section 4 as a basis for CCH cost projection. Present expectation differs from two elements of this timetable:

- All CDS components were assumed to become operational no later than January 1, 1983. Actually several of the less advanced states have no present plans to participate in CDS. The failure of these states to participate will reduce CDS funding requirements only slightly since most are included in the 20 smallest states comprising population quintiles 4 and 5 and accounting for only nine percent of overall CDS cost (Exhibit 6, Section 4). Non-participation by some states will, however, cause the loss of some potential savings for the FBI.
- States already participating in OBTS/CCH are assumed to have kept up with their workloads. Few of the states already participating in CCH have been able to process arrest and disposition records without building up large processing backlogs. Two states have withdrawn from NCIC/CCH after the date assumed in this study for start-up of their system operation, and other states have dropped one or more entire years of data from their entry process in order to catch up. Therefore, actual 1975 costs will be somewhat less than those projected, and the missing costs would add to future-year projections when those states are able to process their outstanding backlogs.

Cost estimates were made assuming the development of a healthy CCH system and CDS program. Since the above assumptions may not be realizable, the CDS cost projections may require adjustment. However, new cost projections under alternative assumptions can be produced rapidly in the future because the calculations which produced them were automated.

#### 4. CCH COST ESTIMATES

This section discusses specific CCH assumptions which supplement the general CDS assumptions described in Section 2. The construction of a cost model for CCH operation and development is then outlined, followed by a summary of the projected CCH operating and development costs.

##### Assumptions for CCH Cost Estimation

Although NCIC has broadly defined a national criminal history exchange system, many details affecting CCH costs are currently unspecified. State record conversion criteria, the path of disposition data from courts to state repositories, and the date each state will contribute its first records to NCIC/CCH exemplify cost factors that have not, or cannot, be fully specified by LEAA or the FBI. Therefore, it was necessary to precede actual CCH cost estimation by specifying general assumptions reflecting (1) policies in the 11 states visited during this study, (2) announced intentions of FBI/NCIC and LEAA, (3) anticipated legislative activity, and (4) the opinions of informed observers. The principal assumptions centered around:

- Single-state/multi-state configuration;
- Medium-cost record conversion policy;
- 100 percent fingerprint and disposition submission;
- Generally available technology;
- Cost/performance improvements in computing and telecommunications technology;
- Specific timetable for CCH start-up in each of the 52 states; and
- System response types are generally consistent with current NCIC/CCH capabilities.

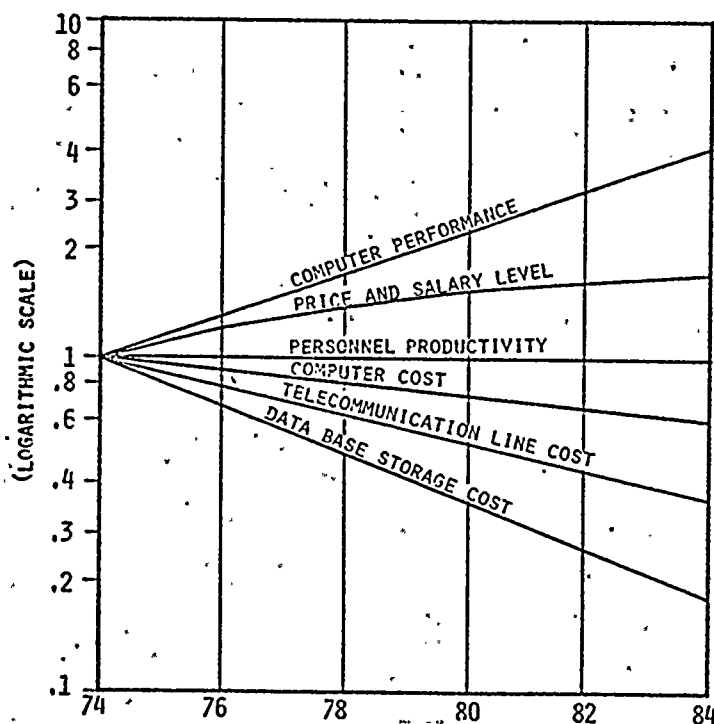
Single-state/multi-state configuration. All single-state, non-Federal, criminal histories were assumed to reside in state data bases while multistate and Federal criminal histories are stored in NCIC/CCH. The NCIC central file also contains an index to all single-state histories. The index contains sufficient identification data to permit retrieval of the criminal history from a state data base. This assumption is in accordance with an announced NCIC/CCH policy which has yet to be implemented. Present practice calls for a procedure in which single-state records also reside in the NCIC/CCH data base.

Medium-cost record conversion policy. Each state was assumed to establish automated records for all first offenders arrested after its CCH begins operation. Prior histories will be converted only for non-automated multistate offenders who are being arrested for the first time in a new state and for automated subjects whose NCIC/CCH records are found by a state to be incomplete. Therefore, estimated conversion cost lies between the less expensive policy of automating only first-offender records and the more expensive policy of converting manual histories of all subjects rearrested after CCH begins operation.

100 percent fingerprint and disposition submission. Legislation was assumed to exist requiring that each state receive fingerprint-supported reports of all arrests for NCIC criterion offenses. Also Federal and state security and privacy laws were assumed to require that each arrest report be supplemented by a record of the dispositions of all charges.

Generally available technology. All participants were assumed to operate well within technological frontiers anticipated through the estimation period. Data storage, computer processing, and telecommunications costs were all assumed to decline at rates conservatively reflecting recent experience. Widespread installation of facsimile equipment for fingerprint transmission was not assumed nor was automated fingerprint identification by either the FBI or the states.

Cost/performance improvements in computing and telecommunications technology. The assumed indices for improvement in computing



power and cost over the 10-year period are shown in Exhibit 4. Computer performance for a standard installation is expected to improve by a function which approximates 14 percent each year, while the cost of that installation is expected to decline by 5 percent per year (before adjusting for inflation). Telecommunication line costs will decline at approximately 9 percent and data base storage devices at 15 percent each year. Personnel productivity, measured by output per man-hour,

EXHIBIT 4: INDICES OF COST AND PERFORMANCE

is assumed to be constant over the projection period. Price and salary levels were assumed to increase according to forecasts appearing in the FY 1976 U.S. Budget.

A specific timetable for CCH start-up. CCH cost is very sensitive to the time phasing of state participation. Therefore, a timetable was prepared based on the earliest expected date that each state could attain sufficient technical capability. The timetable reflects the opinions of LEAA regional systems specialists, CDS project managers, and NCIC personnel. However, it is optimistic because all states were assumed to participate, and lengthy delays for resolution of political and bureaucratic issues were not included. The timetable implies that twelve states, with about 60 percent of all arrests, will have operating CCH systems by 1976 and that all states will be operational by 1981.

System response types are generally consistent with current NCIC/CCH capabilities. System response types include: on-line remote name-search, on-line remote criminal summary production, on-line full criminal history retrieval for record maintenance only, and off-line (batch) output of criminal histories for mailing to requesting agencies within 24 hours.

Additional CCH assumptions are discussed in Appendix A of the Cost and Benefit Study Report.

#### CCH Operating-Cost Model

A CCH operating-cost model was used to calculate all elements of annual CCH cost for each state and for each year of operation as a function of the predicted arrest volume for each year. The model consists of:

- Flowcharts describing state and Federal CCH processing of arrest updates, disposition updates, and inquiries;
- A description of the work content for each task illustrated on the flowchart;
- Unit-cost estimates for each task;
- Definitions of the 16 types of arrestees moving through the flow paths; and
- Lists of tasks applicable to each arrestee type during disposition processing and inquiry.

An excerpt from a cost model flowchart is shown in Exhibit 5. It illustrates the decision-making processing for conversion of an arrestee's prior history based upon a criminal summary response from NCIC. The model depicts arrestee type E, a non-automated subject

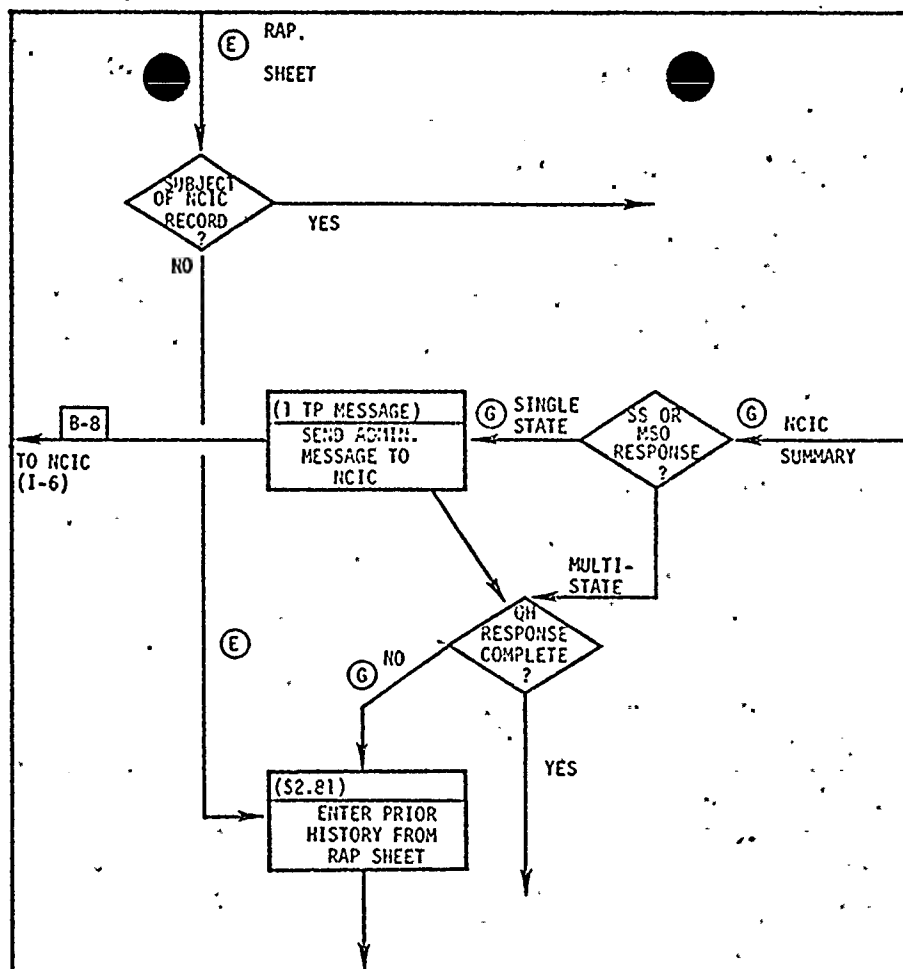


EXHIBIT 5: EXCERPT FROM COST MODEL FLOWCHART

becoming a multistate offender with the current arrest, incurring a \$2.81 conversion cost in the state of current arrest. Arrestee type G, whose single-state record established by another state lacks one or more prior arrests in the current state, would incur the \$2.81 and automatically generate one administrative telecommunication message to NCIC. The message would advise NCIC to retrieve the other state's history and create a full multistate record.

Cost calculations, for the representation given in Exhibit 5, require estimates of the proportion of arrestees belonging to each type. These estimates were drawn from a sample of FBI manual criminal histories. The time intervals between prior arrests on the manual records were used to predict the intervals between future arrests to be recorded in CCH under the assumed conversion policy. Separate estimates were made for subjects with prior single-state, multistate, and Federal records. Joint application of the time interval and interstate mobility distributions to a linear projection of recent arrest trends generated arrest forecasts by type of arrestee. The cost model was used to translate these arrest forecasts into CCH operating cost estimates.



## CCH Development Cost Model

Development cost estimation did not require the rigorous modeling necessary for operational cost estimation. Development costs were extrapolated from an analysis of the actual CCH cost experience of six states. Field study provided cost figures from Arizona, Georgia, Minnesota, and New Jersey. Published reports provided additional data from New York and Mississippi. Supporting detail was also extracted from a review of all OBTS/CCH grant applications.

Extrapolation of development cost from the study states to the 52 states was based on the following assumptions:

- A state data communication system was assumed to be in place with lines, interfaces and terminals to major law enforcement agencies, and with an interface to NCIC. A portion of the state data communication system's annual operating cost was prorated to CCH on the basis of transaction volumes.
- A state data processing center was assumed to be in place for processing both CCH and other law enforcement applications. State data processing center costs were prorated to CCH as an operating cost in a similar manner.
- A full state fingerprint identification capability was assumed to be able to process fingerprint cards for all NCIC criterion arrests. Cost of additional fingerprint processing generated by mandatory 100 percent fingerprint submission is attributed to CCH as an operating cost.
- Development tasks were assumed to be completed in the following time periods:
  - Year 1 - systems definition and design,
  - Year 2 - start implementation, start staffing,
  - Year 3 - full staff hired, start operation.
- The size of CCH management and support staffs were estimated as a function of the state's population.
- Excluded from development costs but treated above as operating costs are:
  - computer upgrade cost,
  - historical records conversion and data entry, and
  - additional communication lines and terminals to major prosecutors' offices.

The development costs were summarized in four categories: preliminary development, implementation, general support and administrative, and investment.

Preliminary development costs include the cost of preparing master plans, action plans, and grant applications. Also included are requirements analysis/systems design and the cost of designing the CCH reporting forms and procedures for disposition reporting.

Implementation costs include software preparation and computer time.

General support and administrative costs include staffing and supervision, facilities rental, automotive rental, travel and per diem expense, supplies and office expense, and indirect cost. Staffing costs, exclusive of data preparation staff, were made by projecting numbers of personnel by state population quintile<sup>1/</sup> and by applying the average grade salaries for each quintile. Data preparation staff size was computed on the basis of CCH data entry workloads estimated in the operational cost model. The calculation of staffing costs is described in detail in Appendix A.2 of the Cost and Benefit Study Report.

Investment Costs included office equipment only.

Development costs were extrapolated by this method for 41 states. Individual estimates were made for the eleven other states.

#### CCH Cost Summary

CCH development and operating costs, estimated by state, were grouped by population quintiles for presentation in this report. The characteristics of the population quintiles are shown in Exhibit 6.

The 10 largest states, grouped in quintile I, are expected to establish their state data bases much earlier than the smaller states. That expectation is consistent with the fact that 60 percent of all arrests are concentrated in those states. Both the early system start-up and the large arrest volumes help explain why 44 percent of CCH cost is attributed to those states. Exhibit 6 also shows 27 percent of estimated CCH cost attributed to units within the FBI. Most of this cost is accounted for by NCIC/CCH data entry for arrests by Federal agencies, non-participating states, and the District of Columbia, and by FBI Identification Division activities in support of CCH.

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<sup>1/</sup>Population quintiles are described below and in Exhibit 6.

Population Quintiles		Characteristics			CCH Cost % of Total
State Groups Ordered by Population	% of Natl. Arrests	% of Natl. Population	Medic CCH Start Date	Number of States	
I. Ten Largest States  FL, CA, NY, PA, IL, TX, MI, NJ, MA, OH	60%	54%	'74	10	44%
II.  GA, MN, LA, VA, MO, MD, IN, NC, TN, WI	19%	21%	'78	10	12%
III.  SC, CO, PR, AL, CT OK, WA, IA, MS, KY, KS	12%	15%	'79	11	8%
IV.  AZ, VT, ME, WV, HI, NM, NB, RI, OR, AR	7%	7%	'78	10	6%
V. Ten Smallest States  ID, NV, MT, DL, WY, NH, SD, ND, VT, AK	2%	3%	'79	10	3%
FBI/Ident. & NCIC/CCH					27%

EXHIBIT 6: CHARACTERISTICS OF POPULATION QUINTILES

Exhibit 7 disaggregates CCH cost into development and operating expense by year for each quintile and for the FBI. The substantial operating cost estimated for the largest quintile reflects the extensive CCH development work already accomplished by those states. In all quintiles, estimated operating cost rises as states join the system, until 1981 when all states are assumed to be operational. The fairly level cost profile following 1981 reflects the interaction of increasing transaction volumes, counterbalanced by decreasing costs for data processing, telecommunications, prior history conversion, and error correction.

The substantial proportion of development cost attributed to quintile I indicates that despite large expenditures in past years, completion of systems currently being developed will require large expenditures in the future. Generally, development costs decrease with state population because smaller states need less of the following components: training and equipment for coding and entry clerks, sophisticated software to handle large transaction volumes and data bases, and field personnel for liaison with local agencies. An exception to this pattern is quintile II, where substantial previous development in Minnesota, Georgia, and Louisiana lowers expected future development cost below that of quintile III.

CCH PARTICIPANTS	COST CATEGORIES	CCH COST BY YEAR (\$ Millions)										Total Ten-Year Cost
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	
Quintile 1	Development Cost	4.3	4.5	.4	0	0	0	0	0	0	0	9.2
	Operating Cost	7.2	8.4	8.9	9.8	9.8	9.9	10.0	10.1	10.2	10.3	94.6
	Total Cost	11.5	12.9	9.3	9.8	9.8	9.9	10.0	10.1	10.2	10.3	103.8
Quintile 2	Development Cost	.8	1.2	1.3	.9	.4	.3	0	0	0	0	4.9
	Operating Cost	0	.7	1.0	2.1	2.9	3.2	3.5	3.5	3.5	3.5	23.9
	Total Cost	.8	1.9	2.3	3.0	3.3	3.5	3.5	3.5	3.5	3.5	28.8
Quintile 3	Development Cost	.4	.8	1.5	1.4	1.0	.5	0	0	0	0	5.6
	Operating Cost	0	0	0	.7	1.3	2.0	2.3	2.3	2.3	2.3	13.2
	Total Cost	.4	.8	1.5	2.1	2.3	2.5	2.3	2.3	2.3	2.3	18.8
Quintile 4	Development Cost	1.0	1.0	.7	.7	.7	.4	0	0	0	0	4.5
	Operating Cost	.3	.4	.5	.6	.7	1.0	1.4	1.4	1.4	1.4	9.1
	Total Cost	1.3	1.4	1.2	1.3	1.4	1.4	1.4	1.4	1.4	1.4	13.6
Quintile 5	Development Cost	.2	.5	.5	.9	.6	.4	0	0	0	0	3.1
	Operating Cost	0	0	.2	.2	.4	.5	.6	.6	.6	.6	3.7
	Total Cost	.2	.5	.7	1.1	1.0	.9	.6	.6	.6	.6	6.8
FBI/Ident. and NCIC/CCH	Development Cost	0	0	0	0	0	0	0	0	0	0	0
	Operating Cost	2.7	3.6	4.3	5.4	6.0	7.0	7.8	8.2	8.6	9.0	62.6
	Total Cost	2.7	3.6	4.3	5.4	6.0	7.0	7.8	8.2	8.6	9.0	62.6
All Participants	Development Cost	6.7	8.0	4.4	3.9	2.7	1.6	0	0	0	0	27.3
	Operating Cost	10.2	13.1	14.9	18.8	21.1	23.6	25.6	26.1	26.6	27.1	207.1
	Total Cost	16.9	21.1	19.3	22.7	23.8	25.2	25.6	26.1	26.6	27.1	234.4

EXHIBIT 7 : ESTIMATED CCH DEVELOPMENT AND OPERATING COSTS BY PARTICIPANT

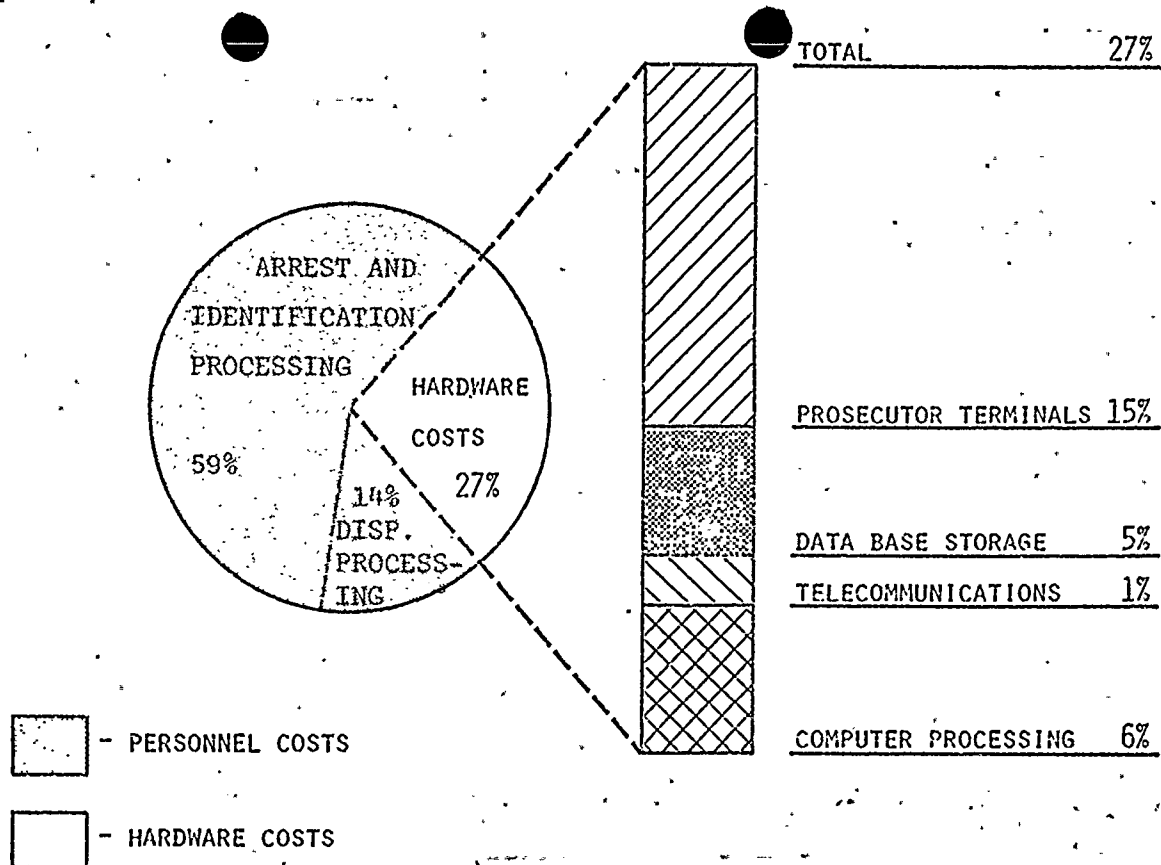


EXHIBIT 8: ELEMENTS OF CCH COST

Exhibit 8 disaggregates CCH operating cost by major cost elements. It indicates that 59 percent of all CCH cost is incurred for labor and non-EDP equipment for identification and arrest record processing in the states. An additional 14 percent is allocated to disposition collection and updating, and the remaining 27 percent to hardware and EDP personnel. Within that 27 percent, the largest component is installation of terminals in prosecutors' offices. (On-line receipt of criminal summaries, and a consequent need for lines and terminals, is required to realize benefits for prosecutors; however, it was assumed that a hard copy full criminal history, mailed within 24 hours of request, would satisfy court information needs. Therefore, lines and terminals to courts were not included in the cost estimate.)

In summary, the analysis of CCH costs showed small development costs relative to operating costs. Within operating costs, increasing volumes raise personnel requirements throughout the forecast period; ever-improving technology decreases the cost of data base storage, telecommunications, and computer processing through the forecast period.

## 5. STATISTICAL COMPONENTS COST ESTIMATES

This section includes cost estimates for the OBTS, UCR, SAC, MAS, and TA/CDS components of CDS.

### OBTS Costs

OBTS cost estimates were based on the following principal assumptions:

- . The acronym "OBTS" stands for Offender-Based Transaction Statistics, rather than for Offender-Based Tracking System. Real-time processing is not assumed.
- . State-level data collection and data entry, processed in common with CCH, was assumed. OBTS was charged only with the marginal cost for data items not required by CCH.
- . OBTS forms contain a common identifier which permits the linking of multiple offenses for the same individual.
- . Only state-level OBTS costs were included, i.e., Federal, regional, and local costs were specifically excluded from the OBTS cost estimate.
- . Development costs for OBTS were incurred during the two years following CCH start-up.

OBTS costs are summarized in Exhibit 9 by population quintile. Development costs for the ten smallest states range from \$145,000 to \$170,000 for the two-year development period. In the largest states, the range extends from \$240,000 to \$410,000. Individual estimates were made for 11 advanced states and for the District of Columbia.

Development costs for the ten-year period total \$13.9 million, and operating costs total \$21.0 million.

### UCR Costs

UCR cost estimates were based on the assumption that FBI specifications for a UCR system would be followed, that each state would require a two-year development period, that all states would begin

PARTICIPANT	COST CATEGORIES	OBTS COST BY YEAR - CONSTANT (1975) \$ MILLIONS										Total Ten-Year Cost
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	
Quintile 1	Development	.8	.8	1.0	1.2	.2	0	0	0	0	0	4.0
	Operating	0	1.0	1.3	1.5	1.7	1.9	2.0	2.1	2.2	2.3	16.0
	Total	.8	1.8	2.3	2.7	1.9	1.9	2.0	2.1	2.2	2.3	20.0
Quintile 2	Development	.1	.1	.3	.7	.8	.5	.3	.2	0	0	3.0
	Operating	0	0	.1	.1	.1	.3	.4	.5	.6	.6	2.7
	Total	.1	.1	.4	.8	.9	.8	.7	.7	.6	.6	5.7
Quintile 3	Development	0	0	0	.3	.8	.8	.7	.3	0	0	2.9
	Operating	0	0	0	0	0	0	.2	.3	.3	.4	1.2
	Total	0	0	0	.3	.8	.8	.9	.6	.3	.4	4.1
Quintile 4	Development	.1	.3	.3	.3	.3	.3	.4	.2	0	0	2.2
	Operating	0	0	0	.1	.1	.1	.1	.1	.2	.2	.9
	Total	.1	.3	.3	.4	.4	.4	.5	.3	.2	.2	3.1
Quintile 5	Development	0	0	.2	.3	.2	.4	.4	.3	0	0	1.8
	Operating	0	0	0	0	0	0	0	0	.1	.1	.2
	Total	0	0	.2	.3	.2	.4	.4	.3	.1	.1	2.0
Total All Participants	Development	1.0	1.2	1.8	2.8	2.3	2.0	1.8	1.0	0	0	13.9
	Operating	0	1.0	1.4	1.7	1.9	2.3	2.7	3.0	3.4	3.6	21.0
	Total	1.0	2.2	3.2	4.5	4.2	4.3	4.5	4.0	3.4	3.6	34.9

EXHIBIT 9 OBTS DEVELOPMENT AND OPERATING COST BY PARTICIPANT

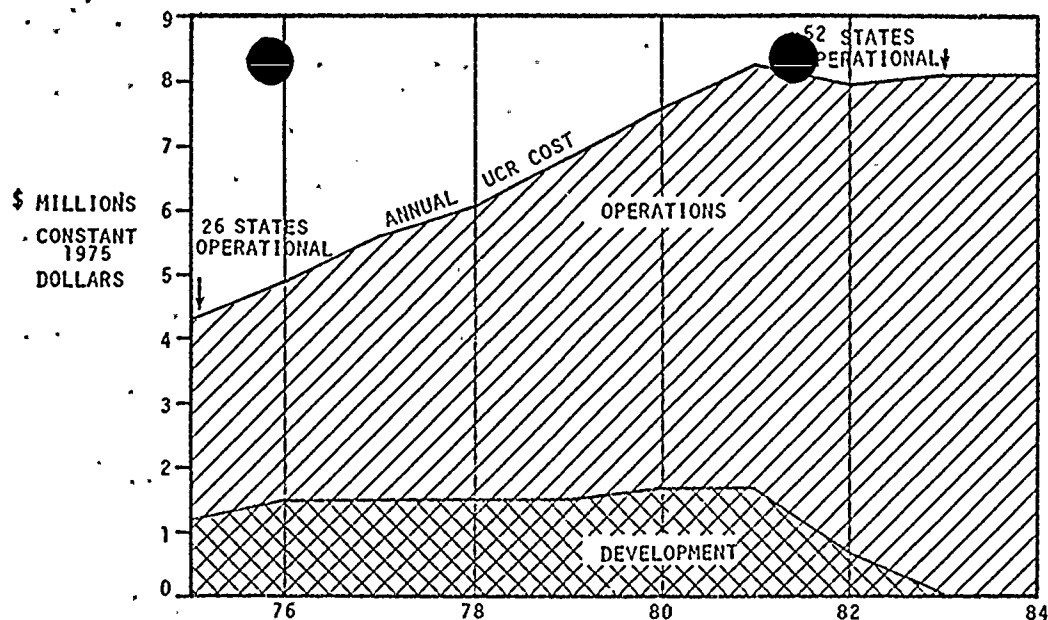


EXHIBIT 10: UCR DEVELOPMENT AND OPERATING COST BY YEAR

development before January 1, 1981, and that, consequently, all states would be fully operational by January 1, 1983.

Development costs were assumed to be equal for all states. Development costs of \$200,000 for year 1 and \$175,000 for year 2 were based on a consistent pattern of costs observed in the study states. An observed median operations cost of \$156,400 was applied to year 3 and beyond.

UCR operations and development are shown in Exhibit 10. A cost leveling is forecast at \$8.1 million by 1983, at the completion of the development phase. Ten-year development costs total \$11.2 million, operations cost will be \$56.8 million, totaling \$68.0 million or, with adjustments for inflation, a ten-year total of \$93.8 million.

#### SAC, MAS and TA/CDS Costs

Cost estimates for the SAC, MAS, and TA/CDS components were based on the assumption that funding for these components would continue at present levels. They do not generate uncontrollable expenditure requirements and have negligible development costs. All states were assumed to be operating these components by January 1, 1981.

Median costs for active or recently completed projects were used in the cost projections. On an annual basis, median costs were:

SAC	\$100,000
MAS	31,900
TA/CDS	34,700



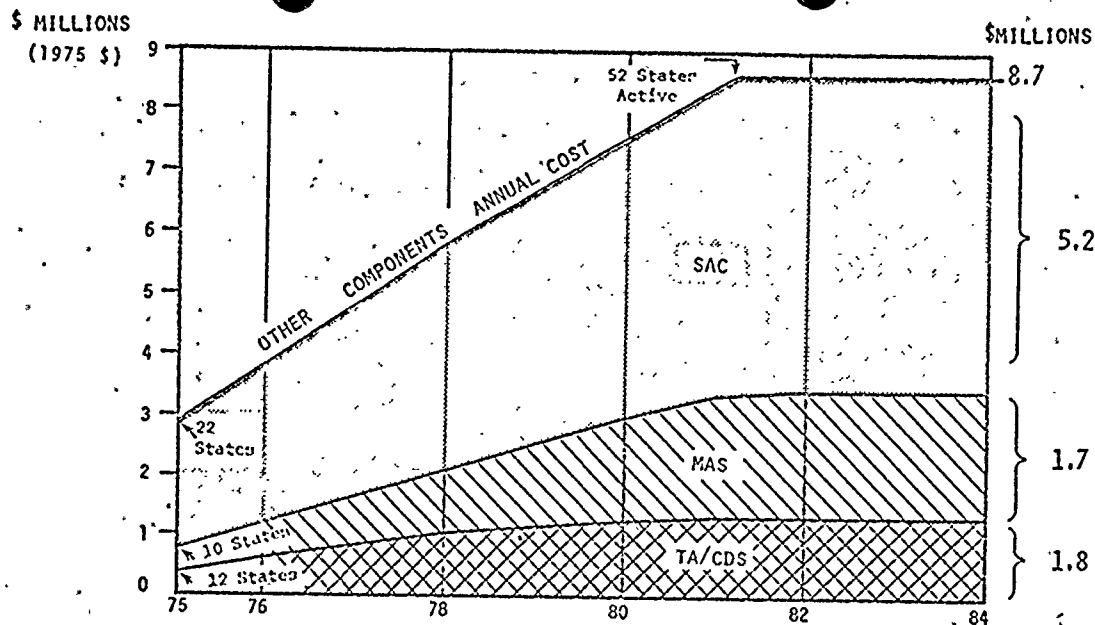


EXHIBIT 11: OTHER CDS COMPONENTS COST BY YEAR  
(SAC, MAS, TA/CDS)

A cost summary for these three components is shown in Exhibit 11. A level annual cost of \$8.7 million will be reached by 1981. Ten-year total costs are shown below.

	Ten-Year Total Cost (\$Millions)	
	(Constant Dollars)	(Current Dollars)
SAC	\$41.5	\$57.6
MAS	12.0	17.3
TA/CDS	13.0	18.4
TOTAL	\$66.5	\$93.3

## 6. CDS BENEFITS

A measurement method for CDS benefits was needed for evaluation of future CDS policies. Assignment of dollar values to CDS benefits, other than for direct cost savings, was rejected early in the project as a measure method. It was believed that subjective assignment of dollar values, in the absence of a competitive market for CCH products, would be misleading and of less value for policy analysis than would be a cataloging of objectively measurable CDS uses. This project has therefore attempted to (1) identify realizable CDS benefits and (2) to quantify the benefits as a basis for policy evaluation.

### CCH Benefits

Six areas for CCH benefit assessment are examined in this section:

- Improvement of the criminal justice decision making process;
- Federal agency operations;
- Community protection;
- Protection of individual rights;
- Criminal justice systems improvements; and
- Cost displacement, or potential savings to be realized from the automation of manual processes.

Improvement of the Criminal Justice Decision-Making Process. Benefit assessment in this area was concerned with the CCH system's capability for improving both the quality and speed of criminal justice decision-making. The decision processes, and the potential recipients of CCH benefits are listed below.

The principal operational benefits of CCH are the potential improvements in the quality and timeliness of criminal justice decisions. These benefits result from the availability of information from CCH which is not otherwise available within a usable time period (e.g., a record of crimes committed in a distant jurisdiction). Rapid CCH response, particularly the availability of a criminal summary within seconds, is necessary for realization of these decision-making benefits.

Criminal Justice Decision Process	Agency Receiving Principal CCH Benefit			
	Police	Prosecutor	Judiciary	Corrections
Investigation	✓			
Citation, Arrest, and Minor Case Disposition	✓	✓		
Jailing	✓			
Screening & Arraignments		✓	✓	
Plea Negotiation and Trial Preparation		✓	✓	
Sentencing and Supervision of Sentenced Offenders			✓	✓

CCH impact on the quality of individual decisions can be determined through comparisons between the volume of those decisions, and the characteristics of the criminal justice system of the future that would be affected by "speedy trial" legislation, and recommendations of the National Advisory Committee on Criminal Justice Standards and Goals. Exhibit 12 presents an estimate of the numbers of decisions in 1975 and 1984 and an indication of decision time constraints based on recommendations of the National Advisory Commission (NAC). This analysis indicates that by 1984, CCH could potentially contribute to the quality of over 19 million decisions annually, and that it might improve the quality of those decisions, specifically those which must be made within a matter of hours. Such decisions number in excess of 12 million according to the same estimate.

Exhibit 13 shows a projection to 1984 of the number of arrests by year and the number of decisions potentially supportable by CDS. During the 10-year period 1975-1984, there are over 165 million potentially supportable decisions. With the implementation schedule assumed for cost estimation, CCH will be able to support nearly 73 million, or 44 percent of the potentially supportable decisions. By 1984, CCH support will increase to 62 percent and will continue to increase.

DECISION PROCESSES SUPPORTED BY CCH INQUIRY	NUMBER OF POTENTIALLY SUPPORTABLE DECISIONS (MILLIONS)		MAXIMUM RESPONSE PERIOD FOLLOWING ARREST	NUMBER OF RESPONSES REQUIRED WITHIN 6 HOURS IN 1984 (MILLIONS)
	1975	1984		
1. Investigations (Screening of suspects by investigators)	3.01	4.14	unknown	---
2. Citation, Arrest and Minor Case Disposition (Field officer's decision to issue a citation or make a physical arrest; summary of processing of minor cases)	5.02	6.90	6 hours	6.90
3. Jailing (Booking individuals into local jails)	1.47	2.03	6 hours	2.03
4. Screening and Arraignment (Decisions as to further processing by prosecutor and pretrial release by the magistrate)	2.51	3.46	6 hours	3.46
5. Plea Negotiations and Trial Preparation (Misdemeanor Pleas and Trials) (Felony Pleas and Trials)	.59 .40	.81 .55	30 days 60 days	--- ---
6. Sentencing and Supervision of Sentenced Offenders (Presentence investigations, incarceration and interstate probation, parole arrangements)	.90	1.24	unknown	---
TOTAL	13.90	19.13		12.39

EXHIBIT 12: RESPONSE TIME REQUIREMENTS FOR CCH INQUIRIES

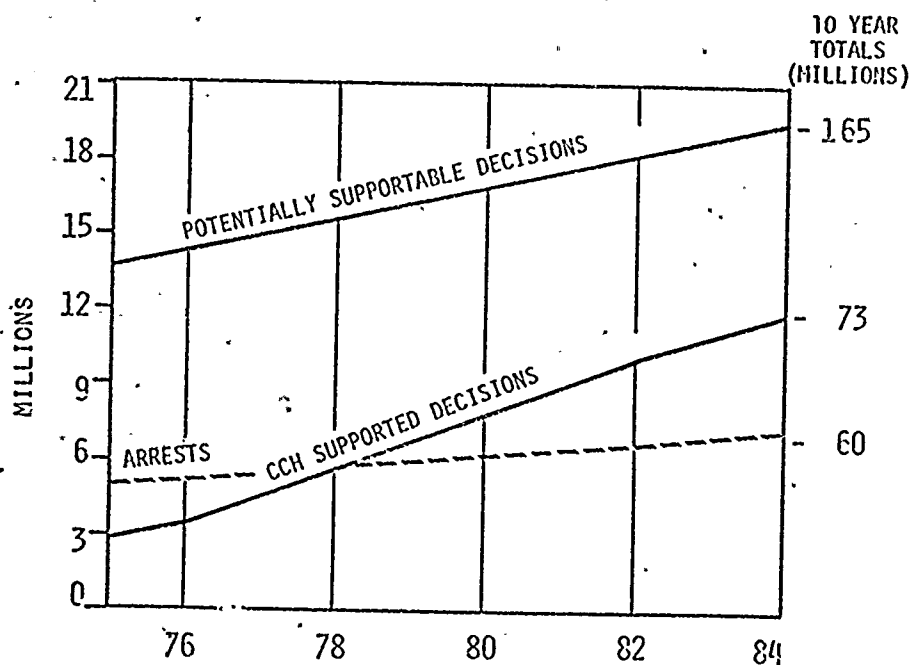


EXHIBIT 13: DECISIONS SUPPORTED BY CCH BY YEAR

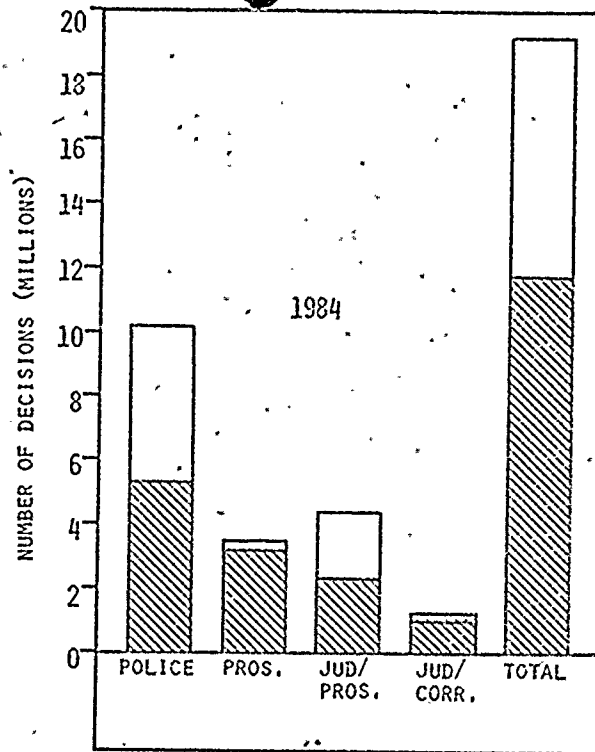
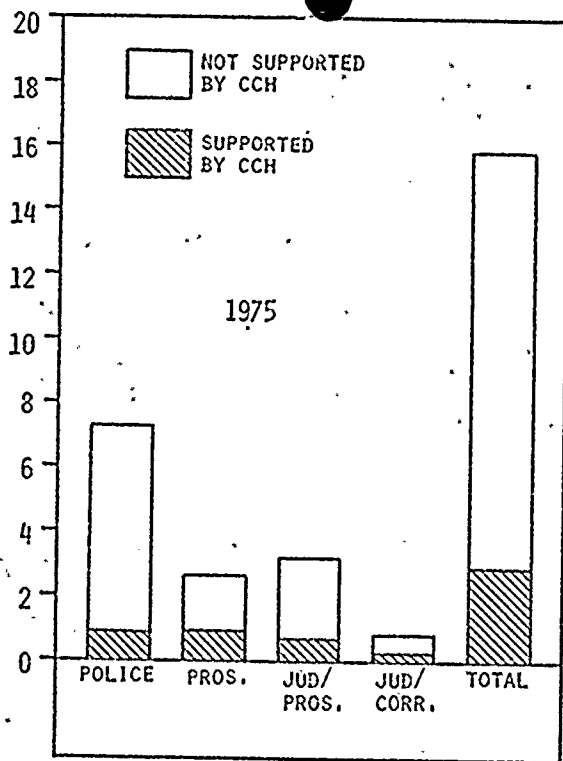


EXHIBIT 14: DECISIONS SUPPORTED BY CCH BY CRIMINAL JUSTICE FUNCTION

Exhibit 14 shows the six decision-making processes in four functional groupings: (1) police, (2) prosecutor, (3) judiciary and prosecutor, and (4) judiciary and corrections. Of specific interest in the 1984 portion is the major support afforded in non-police areas. Prior to 1984, the major beneficiaries will be the prosecution, the judiciary and correctional officials.

Federal Agency Operations. CCH will benefit those Federal agencies with criminal justice responsibilities as well as those making inquiries associated with employment and licensing decisions (pursuant to Public Law 92-544), and Federally chartered or insured banking institutions. Federal agencies in the Department of Justice which will benefit from CCH are the Federal Bureau of Investigation, the Immigration and Naturalization Service, Bureau of Prisons, U.S. Marshall Service, and Drug Enforcement Administration. Within the Department of Treasury, examples are U.S. Secret Service, Bureau of Customs, and Bureau of Alcohol, Tobacco, and Firearms. Examples of other affected Federal agencies are the U.S. Postal Service, U.S. Civil Service Commission, and Small Business Administration.

Federal agencies are a major user of the present NCIC/CCH system. During the month of September, 1974, nearly 30 percent of all NCIC/CCH criminal summary inquiries were from Federal agencies, principally the U.S. Secret Service, FBI Field Offices, the Bureau of Customs and the Bureau of Prisons. This relatively high Federal use no doubt reflects the large percentage of the CCH data base currently devoted to Federal offenders. As state record contributions grow, state inquiry volumes should follow, decreasing the proportion of total inquiries that are made by Federal agencies. The sole Federal consumer of on-line full criminal histories in September 1974 was the U.S. Bureau of Prisons with inquiries totaling 53.6 percent of the national traffic.

Community protection. Community protection will be improved in several ways through the use of CCH information. These involve the enforcement of criminal statutes directed at recidivists; special handling of career criminals; assessment of the danger potential of persons in custody; awareness of previous escapes from custody and failures to appear for trial; and screening of persons for positions of public trust.

Protection of individual rights. CCH can have both positive and negative effects on individual rights.

Positive effects. CCH will assist in minimizing unnecessary incarceration by providing more information at the time of bail hearing. A potential benefit exists for reduction of danger to persons in jail by identifying and isolating dangerous inmates. CCH will also promote evenhanded treatment, especially when diversionary decisions are to be made.

CCH can contribute to protection of the privacy of individual's records. Individuals having arrest records are entitled to protection from harm that might result from dissemination of inaccurate records or from their unlawful use. Present abuses include the timing and completeness with which records are established, updated, sealed and purged. In some cases, locally maintained records have been used in a manner contrary to law and sound public policy--notably, private agencies have obtained information as part of pre-employment investigations. CCH may reduce these abuses through the exercise of operational controls and audits which are not available to manual systems. For example, CCH can edit records to assure that they are updated within time limits, especially final disposition data. It can automatically generate messages to responsible authorities requesting the submission of such data. It has the potential for automatically erasing arrest information when certain criteria, e.g., the addition of disposition data within certain time periods, are not met. Automated sealing and purging can be done with more certainty and at a much lower cost. Safeguards can be installed (e.g., terminal operator codes) to provide greater protection for records than can be given records stored in file folders.

Negative effects. Individuals who might gain unauthorized access to a terminal would have the opportunity to acquire information about individuals from throughout the United States. Such information could be used for extortion or otherwise to damage the reputation of individuals of record in the system.

Criminal Justice Systems Improvement. Implementation of Standards and Goals<sup>1/</sup> recommendations of NAC will be facilitated by CCH. The effects of CCH are assessed in Appendix C of the Cost and Benefit Study Report as they apply to the following standards:

Use of Citations

Police Standard No. 4.4: Citation

Courts Standard No. 4.2: Citation and Summons in Lieu of Arrest

Corrections Standard No. 4.3: Alternatives to Arrest

Screening and Diversion

Police Standard No. 4.3: Diversion

Courts Standard No. 2.1 and 2.2: Diversion

Corrections Standard No. 3.1: Use of Diversion

Pretrial Release

Police Standard No. 4.4: Release on Own Recognizance

Courts Standard No. 4.5: Presentation Before Judicial Officer Following Arrest

Courts Standard No. 4.6: Pretrial Release

Safety of Persons in Jail

Corrections Standard No. 2.4: Protection Against Personal Abuse

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<sup>1/</sup>National Advisory Commission on Criminal Justice Standards and Goals, Six Reports of the National Advisory Commission on Criminal Justice Standards and Goals (Washington, D.C., Government Printing Office, January, 1973).

## Speedy Trials

- Police Standard No. 4.1: Cooperation and Coordination
- Courts Standard No. 3.1: Abolition of Plea Negotiation
- Courts Standard No. 4.1: Time Frame for Prompt Processing of Criminal Cases
- Courts Standard No. 4.3: Procedure in Misdemeanor Prosecution
- Courts Standard No. 4.8: Preliminary Hearing and Arraignment
- Courts Standard No. 4.9: Pretrial Discovery
- Courts Standard No. 4.10: Pretrial Motions and Discovery
- Courts Standard No. 4.11: Priority Case Scheduling
- Courts Standard No. 4.10: Expediting Criminal Trials

Cost Displacement, or potential savings, to be realized from the automation of manual processes. Potential cost savings of \$130 million over the ten year period from 1975 to 1984 could be realized from replacement of manual functions by automated CCH operations. \$45 million of this amount could be realized by the states and \$85 million at the FBI's Identification Division if the manual update of rap sheets were halted for all subjects automated in the CCH system. However, present practice and informed opinion suggest that parallel operation of manual and automated systems may continue for several years. For this reason the project team elected not to subtract this cost displacement amount from the projected costs shown in Section 3 of this summary. These savings will remain potential until policies are established to reduce parallel operations.

Summary. Congressional enactment of speedy trial legislation, and its implementation over the next 16 months, will have a profound effect on the Federal judicial system. This newly enacted Federal legislation may stimulate enactment of similar statutes in the states. When this happens, current manually operated criminal history systems will not be able to support the millions of decisions which must be made within hours of the time of arrest.

If the criminal justice system is to evolve as NAC recommends and if it is to work effectively within speedy-trial time constraints, then an automated criminal history exchange system will be a necessity. Until that necessity arises, CCH benefits can be summarized as:



- Support for 73 million state and local decisions for the period 1975 to 1984.
- Support of Federal agency operations for national security, criminal justice, employment, and licensing.
- Facilitating the exchange of criminal history information for community protection as well as protection of individual rights, realizing that hazards are introduced for personal security and privacy.
- Support for important criminal justice system improvement as recommended by NAC, and
- Potential cost savings of \$130 million from automation of manual processes.

### OBTS Benefits

At the state level, offender-based transaction statistics can provide analytical support for a number of activities. Among these are:

- Allocating limited funds among correctional institutions, state court and prosecution activities, and specialized criminal investigation efforts.
- Planning and managing probation, parole, and correctional programs, particularly when workloads are determined by flows of subjects across jurisdictional lines.
- Coordinating and evaluating special investigative/prosecutorial efforts targeted at narcotics or organized crime.
- Identifying and ameliorating scheduling problems in state trial courts.
- Developing and evaluating legislative initiatives in the fields of penal statutes, specification of permissible sentences, and judicial procedure.

Additional state-level uses have been cited in Project SEARCH Technical Reports 4 and 5.

At the local level, on-line offender-based tracking systems provide a number of capabilities. Among these are:

- Ability to answer status and schedule inquiries from litigants and witnesses.
- Ability to monitor aging of cases.
- Ability to locate pending cases involving police officers no longer available for court appearance.

- . Ability to identify multiple cases pending against same individual and to use this knowledge in bond recommendations.
- . Ability to plan police manpower uses based on knowledge of when officers are needed in court.

In addition, these tracking systems can periodically produce transaction statistics, with additional uses. These include:

- . Establishment of priorities in the use of criminal justice resources, with evidence of the impact of one segment's priorities on other segments of the criminal justice system.
- . Improved police/prosecution coordination to decrease the incidence of unsuccessful prosecutions caused by procedural difficulties.
- . Program evaluation and planning in such areas as prison furloughs, pre-trial diversionary programs, and increased use of citations in lieu of pre-trial detention.

Since either the city police or county sheriff may make an arrest, resulting in adjudication by the county and sentencing to a county or state institution local tracking and statistical capabilities are significantly enhanced by a state-level system recording flows across jurisdictional lines.

Although the above benefits are substantial, it is not clear whether OBTS as currently designed achieves them efficiently. Important questions concerning OBTS as a component of CDS include:

- . Whether the cost of delayed CCH implementation caused by linkage to OBTS is outweighed by the improved quality of statistics produced as a by-product of operations.
- . Whether the improved quality and standardization of data entered at the state level justifies the expense of duplicating data already entered in local tracking systems.
- . Whether the protection of privacy provided by omission of personal identification from state OBTS data is worth more than the resulting limitations on studies of rearrest and recidivism.

Because these and other policy questions concerning OBTS require substantial further study, a full benefit evaluation of OBTS as a component of CDS does not appear in the CDS Cost and Benefit Study Report.

## UCR Benefits

UCR is expected to provide more complete crime and arrest statistics, as the voluntary UCR program becomes state mandated. More comprehensive UCR data will enhance state and local law enforcement planning by providing:

- More reliable statistical data from which the extent and seriousness of the state's, as well as each locality's, crime problems can be determined.
- Specific crime and offender data including the age, sex, and race of arrestees--needed for systems planning; and
- A geographic, as well as a demographic, distribution of offenses that will be of value in establishing program priorities for both planning and resource allocation.

UCR statistics benefit law enforcement tactical operations primarily by facilitating timely and accurate special studies of particular local crime problems. For example, by combining UCR data with certain administrative data, e.g., the size of the work force in a particular crime zone, workloads can be continuously monitored and changed in an attempt to achieve optimum manpower utilization.

Another, and perhaps significant benefit of state-level UCR is that it will force many police agencies to keep records of crimes and other law enforcement events. Many small agencies have never maintained such data completely and accurately, as required by the UCR component. The significance of this improvement should not be underestimated, but dollar-and-cent assessment of it requires rather unrealistic assumptions.

## SAC Benefits

At the present stage of CDS development, Statistical Analysis Center benefits have generally been non-statistical. With rare exceptions, data collection systems have not been operational long enough to produce usable raw material for statistical analysis.

However, in several states the SAC has served as a focal point for expressing user needs to the designers of OBTS/CCH. Its status outside operating criminal justice agencies uniquely qualifies the SAC for this role. Therefore, as more states begin OBTS/CCH development in the future, this use of the SAC can be expected to grow.

## Benefits of MAS and TA/CDS

In the absence of specific requirements for these components, states have used MAS and TA/CDS funds to address a variety of needs specific to their situations. No misuse of these funds were noted in the study states; however, expenditures on these components cannot be described as financing progress toward any single national objective.

## 7. POLICY ISSUES

The costs estimated in this study are significantly higher than those originally projected for CDS. Federal funding, originally planned for CDS development, is now being used to cover initial operations and other costs which some participating states are either unwilling or unable to assume. Many states do not yet perceive the CDS program to be permanent and viable. Consequently, they prefer to utilize Federal funds to the maximum extent possible while withholding a full commitment of state personnel and resources. The net result is a CDS program with a growing need for Federal funds. In the opinion of the project team, survival of the CDS program will require either an increase in Federal funding to more than double the present planned level over the next 10 years or the revision of several high-cost-impact CDS policies to reduce the need for Federal funds.

Several policies were identified as candidates for revision, since they offer potentially large cost reductions with only minor losses in CDS benefits.

These policies are listed in Exhibit 15, together with comments on their contribution to CDS goals, rough assessments of their cost impact, and some suggested alternative policy directions.

The alternatives are briefly discussed below.

1. Participation of all 52 states is anticipated for the CDS program. This desirable objective may not be achieved within 10 years because: (1) lack of program funds may require limitation of state participation to those most able to help themselves, and (2) many less advanced states are unable to meet the administrative requirements for CDS funding in a short time period and may require technical assistance or actual Federal support.
2. Manual criminal history systems will duplicate CCH operations for 10-years or more. With few exceptions, the participating CCH states and the FBI are continuing full manual duplication of their CCH system entries and updates. If this policy continues, by 1984, more than \$18 million per year in potential CCH cost savings will be unrealized.
3. Dedicated computers for CCH must be under the management control of a law enforcement agency. Some states have legislatively restricted the number of computers or computer centers within the state. Current NCIC policy requires that computers for CCH processing, data base management, and message switching be located under the management control of a law enforcement agency. The conflict between these two policies has prevented CCH participation by some states.

4. Lack of cooperation between law enforcement and judicial agencies in some states limits disposition reporting to OBTS/CCH. In some states, lack of cooperation between law enforcement agencies and the judiciary severely delays OBTS/CCH implementation, increases collection cost, or diminishes the accuracy and completeness of disposition data collected for OBTS/CCH. Potential CDS cost increases, due to this problem, have not been incorporated in the cost projections of this study. No specific solutions are suggested by the study other than a serious need to develop funding policies which would encourage cooperation among affected agencies in all participating states.

5. Delayed fingerprint identification, added processing, and duplicate reporting. Present practice in most states results in submissions of fingerprint cards to both the state fingerprint identification bureau and to the FBI's Identification Division. Duplicate fingerprint submission substantially, and needlessly, raises national fingerprint processing costs. Delay is another critical factor; unless the subject is known to local authorities, the present fingerprint identification process returns positive identification of an arrestee (required as the key for CCH inquiry) in time periods ranging up to two and three weeks. CCH benefits could be materially enhanced by shortening the time for all identifications to hours.

6. Prior manual histories are converted for subjects rearrested after CCH start-up. Compared with "first-offender automation," the present "re-entrant conversion" procedure of converting prior manual histories can more than double the number of clerical personnel needed during the first 10-years of CCH operation. Therefore, this study assumed that first-offender automation must replace the current policy for all except multistate and Federal offenders. The CDS Cost and Benefit Study demonstrated that very little benefit is lost under the less costly policy and that neither policy will retire the manual system within ten years of CCH start-up. (See Exhibits B-5 and B-6 in Appendix B of the CDS Cost and Benefit Study Report.)

7. Multistate offender criminal histories reside in the central NCIC/CCH data base. The present CCH policy of maintaining multistate offender records at NCIC rather than in the state data bases has been based on the joint expectations of lower cost and higher reliability for this approach. The CDS Cost and Benefit study, however, found unexpectedly high cost associated with error correction of entries to this central data base. Furthermore, several states with strict privacy legislation are delaying NCIC/CCH participation because they fear loss of dissemination control over arrest records contributed to a central file.

8. Disposition reporting requirements as not being enforced. This policy facilitates CCH implementation by avoiding judicial/law enforcement controversies. However, future privacy legislation may require

erasure or expunction of arrest records not followed by dispositions within a reasonable time period. In this case, retroactive disposition collection would be virtually impossible, rendering much of the data base unusable. An LEAA funding policy requiring full disposition reporting should be explored and cost-effective disposition collection methods developed. NCIC has an important role to play in encouraging full disposition reporting.

9. OBTS/CCH source document data are collected at the state level. Source data coding and key-entry comprise nearly 60 percent of CCH cost. Several states are collecting disposition source documents for key-entry at the state level even though the same, or similar, data are being key-entered into other state and local systems. Significant opportunities exist to reduce costs and improve accuracy by a funding policy which would encourage non-redundant collection of disposition information through interface between OBTS/CCH and other automated criminal justice information systems.

10. Statistical components are being funded prior to development of a national system design. CCH and UCR systems are guided by a limited amount of technical design documentation prepared by the FBI, but the statistical components, especially MAS and TA/CDS, are directed only by the general guidance given by the CDS Guideline Manual. As a result, the relatively fixed amounts granted to states for these components are utilized in widely diverse ways which do not necessarily support the coherent growth of a national criminal justice statistics capability. Guideline revisions should be considered for more specific direction of these funds.

11. Management control of the CDS program, especially criminal history exchange, is fragmented among:

- . The FBI, including NCIC and the Identification Division, for record maintenance and identification;
- . LEAA, including funding for the CDS, State Judicial Information Systems (SJIS), and Offender-Based State Correctional Information Systems (OBSCIS) programs;
- . State Planning Agencies (SPA's), which distribute block grant funds to state and local agencies;
- . FBI/NCIC for systems management and standards (CCH and UCR); and
- . FBI/NCIC and LEAA for technical assistance.

Since CDS inception, several of these policies have raised expenditures above the level necessary to achieve CDS goals. Until resolved, they will continue to do so. The form of their resolution could raise future CDS costs above the path projected in this report. Substantial future planning, supplemented by analyses of alternatives, will be needed to develop a more cost-effective CDS.

PRESENT POLICIES OR EXPECTATIONS	CONTRIBUTION TO CDS GOAL ACHIEVEMENT	POLICY ALTERNATIVES	COST IMPACT OF POLICY CHANGE
1. Participation of all states is anticipated for the CDS program. However, some states are not ready for participation, and current funding policies may not support participation of all states within the next ten years.	Very high	1. (a) Delay participation of technically less advanced states. Process data from these states at federal level. (b) Encourage participation of less advanced states by providing technical assistance and modified funding policies.	Moderate
2. Manual criminal history systems will duplicate CCH operations for ten years or more.	Negative	2. (a) Refine CCH system design and provide technical assistance to reduce need for duplicate operations. (b) Modify funding policy to reduce financial support for duplicate operations.	Very high
3. "Dedicated computers" for CCH are required to be under the management control of a law enforcement agency.	Barrier to some states' participation	3. Consider alternative definitions of security assurance.	Low
4. Lack of cooperation between law enforcement and judiciary in some states limits disposition reporting to OBTS/CCH.	Negative	4. Consider funding policies which would encourage cooperation in those states.	Unknown
5. Delayed fingerprint identification response encourages multiple submissions, added processing, and duplicate reporting	Negative	5. High technology, rapid response identification systems would enhance CCH benefits. Encourage a uniform single fingerprint submission policy, and technical assistance by the FBI to the states.	Very high

EXHIBIT 15: SUMMARY OF COST-RELATED CDS POLICY ISSUES

PRESENT POLICIES OR EXPECTATIONS	CONTRIBUTION TO CDS GOAL ACHIEVEMENT	POLICY ALTERNATIVES	COST IMPACT OF POLICY CHANGE
6. Manual histories are converted for subjects rearrested after CCH startup (re-entrant conversion policy)	Very low	6. Automate only those subjects whose first arrest occurs after CCH startup (first-offender automation policy)	Very high
7. Multistate offender criminal histories reside in the central NCIC/CCH data-base	Access to multi-state information is essential to CCH	7. Maintain an index to both single and multistate offenders, with records in state data bases.	High
8. Dispositions are not required for CCH arrest records as a condition for funding	Higher speed of CCH implementation System may violate future privacy legislation	8. (a) Full disposition reporting in NCIC/CCH format (b) Full reporting of dispositions linked to arrest charges.	Lower cost than full disposition reporting
9. OBTS/CCH source document data are entered at state level	Less with each succeeding year (as local criminal justice systems are implemented)	9. Collect OBTS/CCH dispositions through interface with other automated systems	High
10. Statistical components are being funded prior to development of a national system design. MAS and TA/CDS components are undefined but account for 6% of CDS cost over ten years.	Negative	10. Develop specific guidelines for implementing statistical components. Consider diverting MAS and TA/CDS funds to other components until their roles are defined.	Moderate
11. Management control of the criminal history exchange program is fragmented: .FBI/NCIC and FBI/Ident.: federal-level data storage .LEAA: funding for CDS, SJIS, OBSCIS .SPA'S: state and local block grants .FBI/NCIC: systems management and standards .FBI/NCIC and LEAA: technical assistance	Negative	11. 1971 OMB recommendation for coordination of interstate criminal history exchange program at the level of the Attorney General	High

EXHIBIT 15: SUMMARY OF COST-RELATED CDS POLICY ISSUES (CONT.)



April 9, 1975

REC-23

Project Director  
The Institute for Law and  
Social Research  
Suite 625  
1125 15th Street, Northwest  
Washington, D. C. 20005

EX-11

Dear [redacted]

Reference is made to the revised draft copy of the report, entitled "CDS Cost and Benefit Study Executive Summary," prepared by your organization and made available to the FBI for review. In making the study results available, you solicited the comments and suggestions of the FBI NCIC staff.

Enclosed herewith is a page-by-page analysis reflecting the results of our review and identifying areas of the summary report which in our view require amplification, clarification, correction, or deletion.

Your cooperation in affording the FBI an opportunity to comment on the report prior to its finalization and dissemination is appreciated.

ENCLOSURE

Sincerely yours,

C. M. Kelley

Clarence M. Kelley  
Director

MAILED 7

APR 9 1975

FBI

Enclosure

1 - [redacted]  
1 - [redacted]  
1 - Mr. Decker (detached)

(See Note - Page 2)

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NOTE: See [REDACTED] to Mr. Decker memorandum captioned, "Draft Copy of Comprehensive Data System (CDS) Cost and Benefit Study Executive Summary Prepared for LEAA by the Institute for Law and Social Research," dated 4/1/75. A search of Bufiles disclosed no derogatory information identifiable with [REDACTED].

## COMPREHENSIVE DATA SYSTEM COST AND BENEFIT STUDY

Set forth below are various comments and suggested revisions to the draft copy of the Comprehensive Data System (CDS) Cost and Benefit Study Executive Summary. The areas of the study which in our view require amplification, clarification, correction, or deletion are identified by the page number(s) on which the subject matter appears and arranged in page number order without consideration of the relative importance of the individual topics.

### Page 1

You state that "The objective of the study was to project the cost and benefits of the Comprehensive Data System (CDS)." It is not clear whether the cost figures projected throughout the report are total costs from all funding sources or are restricted to Federal funds.

### Page 2

Reference to Computerized Criminal History (CCH) as being "about suspects and criminals" is not only inaccurate but misleading. The CCH File is composed of the histories of individuals arrested on serious or significant charges and records their processing through the criminal justice system. Reference to "suspects and criminals" may result in the false impression that the CCH File includes intelligence-type information.

### Page 4

This exhibit is misleading in that, while the caption indicates that this is a schedule of states participating in or planning for CDS, in actuality, it is an exhibit reflecting LEAA funding for the various CDS programs. For example, the State of Florida is a full participant in the NCIC CCH program and yet the exhibit does not reflect that Florida is a participant in the CCH portion of CDS.

62-115930-4

ENCLOSURE

Possibly related to the above, there is a question as to how a state can be a participant in the Statistical Analysis Center (SAC), Management and Administrative Statistics (MAS), and Technical Assistance (TA/CDS) segments of CDS without being a participant in either of the operational segments of CDS (Offender-Based Transaction Statistics (OBTS)/CCH or Uniform Crime Reporting (UCR)), as in the case of Montana. Additional apparent discrepancies of this type appear throughout the exhibit. With respect to UCR, our records indicate that LEAA has funded 27 state UCR programs and that there are a total of 31 states currently operating a state UCR program in addition to Washington, D. C., and Puerto Rico.

Pages 7 and 9

The five assumptions used to govern the cost estimation process for all the CDS components include the assumptions that all states will implement all five CDS components and that OBTS and CCH share a common data collection system. This being so, it is inaccurate and misleading to reflect on page nine that the ten-year cost of the CCH program would be 234.4 million dollars, while the OBTS program would cost only 34.9 million dollars over the same period. This is misleading in that OBTS, as your study shows, is more costly than CCH and if it were developed as a stand-alone system, without CCH support, OBTS would actually cost 269.3 million dollars for ten years. Clarification of the cost relationship between CCH and OBTS and a more accurate and detailed explanation of their relationship would appear to be necessary.

Also, on page seven, the summary indicates that the CCH responsibilities of the District of Columbia will continue to be handled by the FBI through 1984. This is not correct. Although the FBI has assumed this responsibility on an interim basis, it has been with the clear understanding that the District of Columbia will relieve the FBI of this responsibility at the earliest possible date.

Page 11

Paragraph one states that "The accuracy of this forecast depends upon modification of trends and policies which differ from two of the principal assumptions upon which the cost estimates were based." One of these assumptions is the adoption of what is described as a "medium-cost record conversion policy" in place of the present "reentrant conversion policy" which, if continued, would more than double the OBTS/CCH personnel costs included in the study. Since there is no present Federal or state plan to adopt the "medium-cost record conversion policy," its adoption as a principal assumption is unsound, especially in view of the fact that 59% of CCH costs are for labor.

Page 13

The description of the "medium-cost record conversion policy" is not clear as written. The word "re-arrested" in the last line of the first paragraph should be changed to "arrested" so as to include both first offenders and recidivists.

Pages 14 and 17

Reference is made to the statement on page 14 that "...twelve states, with about 60 percent of all arrests..." and on page 17 that "The 10 largest states...that 60 percent of all arrests are concentrated in those states..." are not necessarily in conflict but are misleading. The ten largest states, or a combination of 12 states, could both represent 60% of arrests but, to eliminate what might appear to be an inconsistency, it may be advisable to revise or amplify one or both of the statements.

Pages 14 and 15

The remarks on these pages, including Exhibit 5, contain an excerpt from the cost model flowchart. The excerpt is not presented clearly and does not contain sufficient detail to answer the questions it raises. Therefore, the excerpt should be rewritten or, better yet, deleted from this "Executive Summary."

Page 16

The following is listed as a development cost assumption: "A full state fingerprint identification capability was assumed to be able to process fingerprint cards for all NCIC criterion arrests." There is a question as to why non-criterion arrests, processed at the state level, and applicant-type fingerprint card processing were not also included.

Page 17

Under the caption "CCH Cost Summary" you state "Exhibit 6 also shows 27 percent of estimated CCH cost attributed to units within the FBI." Even in consideration of the Identification Division cost associated with the handling of CCH flag cards, the assignment of NCIC fingerprint classifications, and other CCH-related identification functions, it would appear that 27% is a substantial figure. In view of the expense which will be experienced by each of the 50 states, it would seem that their proportion of the outlay for CCH might exceed 73% since they will be assuming the cost of their own identification functions. Further, it is felt that the 27% of the CCH cost attributed to the FBI should not include the cost of those FBI Identification Division functions which would be performed for the manual system irrespective of the operation of the computerized file.

Page 18

Exhibit 6 reflects the State of Vermont in both Quintile IV and V, while the State of Utah is not reflected in the Exhibit.

Page 19

Your Exhibit 7 reflects no development cost for "FBI/Ident. and NCIC/CCH" during the ten-year period 1975 through 1984. This would appear to be inaccurate in consideration of the continuing programming cost and the expense of liaison with and assistance to the states during the development of their state CCH systems.

It is believed that the Quintile numbers reflected on page 19, Exhibit 7, and page 22, Exhibit 9, should have Roman numerals to correspond with the numerals used in the text on pages 17-18 and in Exhibit 6.

#### Page 20

The graph in Exhibit 8 reflects that 59% of CCH cost is represented by arrest and identification processing. While it is recognized that this percentile represents the expenditure for both FBI and state identification functions, it is a substantial figure. Again, it would be inaccurate to include the cost of the basic identification functions as contributing to the cost of the CCH system. In addition, the Exhibit would appear to reflect that 15% of the hardware operating cost for CCH will involve the installation of terminals in prosecutors' offices. This percentage seems considerable in view of the total hardware requirements of a CCH system.

#### Pages 21-23 and 32

On page 21, it is stated that OBTS cost estimates were based in part on the assumption that "The acronym 'OBTS' stands for Offender-Based Transaction Statistics, rather than for Offender-Based Tracking System. Real time processing is not assumed." However, on page 32 under the heading "OBTS Benefits," a number of capabilities are reflected as a result of local "on-line offender-based tracking systems." Therefore, it appears that the cost of offender-based tracking systems is not reflected in the study; however, the benefits from such systems are included.

Also, on page 21, under the caption "OBTS Costs," appears the sentence, "OBTS was charged only with the marginal cost for data items not required by CCH." This is deemed to be an inequitable distribution of cost between OBTS and CCH for the reasons previously set forth.

Again, on page 21, under the same heading, it is indicated that only state level OBTS costs were included in the study, not Federal, regional and local costs. It is noted that Federal costs were included in arriving at the CCH estimates.

On pages 21 and 23, the assumption was made that in preparing cost estimates for UCR, each state will require a two-year development period and that all states will be fully operational by January 1, 1983. A further assumption was made that all states will have equal developmental costs of \$200,000 for the first year and \$175,000 for the second year. These assumptions are believed to be incorrect for the following reasons:

1) A total of 31 states have an operational UCR program. In addition, neither Washington, D. C., nor Puerto Rico will require the development of a state UCR program inasmuch as they have submitted UCR data for many years and because of the special circumstance that both D. C. and Puerto Rico have only one local law enforcement agency reporting data.

2) The assumption that developmental and operational costs would be equal for all states appears to be erroneous. The majority of the 19 states which do not yet have an operational UCR program are states with a small number of law enforcement agencies and a relatively sparse population. The estimate of \$375,000 for the first two years appears to be inordinately high for these states in view of this factor. In addition, the states which have not yet developed a UCR program are able to draw on the experience of states which are already operational and thereby effect a substantial savings in developmental cost.

Page 28

Exhibit 14 indicates the number of decisions supported by CCH. The Exhibits may be confusing to readers since "PROS" and "JUD" are each shown in two different groupings.



Pages 30 and 32

On page 30, the paragraph captioned "Negative effects" and lines 7 and 8 on page 32 (which read "realizing that hazards are introduced for personal security and privacy") should be deleted as they are unsupported and inappropriate in this "Cost and Benefit Study."

Pages 32 and 33

Under "OBTS Benefits," numerous of the benefits cited cannot be directly attributed to a national OBTS program. Further, some of those benefits attributed to OBTS could also be derived from an ongoing CCH system. It is recognized that on page 33, your study identifies three important questions concerning the viability of OBTS as a component of CDS; however, it would appear that the benefits of OBTS outlined on pages 32 and 33 are excessive and exaggerated.

Page 35

Policy Issue 2 indicates that the manual criminal history system will duplicate CCH operations for ten years or more. This paragraph should be expanded to indicate that NCIC/CCH policy provides for the elimination of such duplication as soon as each state is capable of fully assuming the arrest record-keeping function for its state and that the Florida Department of Criminal Law Enforcement (FDCLE) was the first to do so for that state.

Policy Issue 3 makes reference to management control of a law enforcement agency, while NCIC policy requires management control by a criminal justice agency.

The same paragraph in discussing management control states that present NCIC policy prevents CCH participation by some states and implies that an alternative policy may be desirable. This would appear to be in conflict with the concern expressed on page 30 relative to the possibility of unauthorized access to the system. Retaining management control for CCH data by criminal justice agencies is a procedure advocated by both the FBI and LEAA, and a policy in keeping with the absolute requirement to safeguard CCH data from unauthorized access.

Page 36

Policy Issue 5 should be expanded to indicate that NCIC CCH policy provides for the elimination of duplicate fingerprint card submissions when the state identification bureaus are able to process all local fingerprint cards within their states. Only the Florida Department of Criminal Law Enforcement has assumed this responsibility to date.

Policy Issue 7--there should be a statement that ILSR has not evaluated the problems, costs and the reliability of a CCH system storing multistate records at the state level.

Page 38

Misinterpretation of Exhibit 15 might be lessened by changing the heading for column four. For example, in that column under item two, the entry "very high" is misleading in that it might be construed to mean that implementation of that policy alternative would have the effect of increasing cost when actually the reverse is intended. A more suitable caption for the column might be "Policy Change Effect on Cost Reduction."

Item 3 should be amended to reflect management control by a criminal justice agency.

Item 4 gives the impression that the lack of cooperation between law enforcement and the judiciary in some states limits disposition reporting to OBTS/CCH and can be alleviated through the allocation of funds. There is not, of course, a direct relationship between the lack of cooperation and the lack of funding. Further, funding is not the fundamental problem retarding cooperation between law enforcement and the judiciary. A restatement of Item 4 would be desirable.

Page 39

Exhibit 15, Policy Issue 11, deals with "Management control of" CDS, not "the criminal history exchange program" as indicated. Under "Policy Alternatives" ILSR has exceeded the bounds

of its technical study in recommending who should have management control of CDS. It is proper for the study report to point out fragmented management control as a problem, but it is improper for ILSR to proceed in designating who should have full control. If the alternative was meant to refer to fuller coordination between the funding and management functions for CDS, this item should be re-stated, since it is unclear and misleading in its present form.

In addition to the above, Policy Issue 11 sets out as a policy alternative "1971 OMB recommendation for coordination of interstate criminal history exchange program at the level of the Attorney General," and indicates that this would have a "high" cost impact on the program. It is not clear from the manner in which this item is presented how coordination of the program at the Attorney General level will result in a substantial cost reduction.

With respect to the CCH program, the Attorney General previously issued a policy decision authorizing the FBI to manage that program. Mr. Clarence M. Kelley, Director, FBI, stated the problem quite clearly in his testimony of 3/7/74, before the Senate Subcommittee on Constitutional Rights:

"I must frankly tell you that the CCH concept cannot realize success unless decisions are made which provide the FBI with all the management authority necessary to implement the decisions of the NCIC Advisory Policy Board... In order to develop and implement a successful and effective CCH program... it is essential to clearly delineate the role of the funding authority and that of the operations and management authority. The operational agency, once designated, should be afforded the authority as well as responsibility to carry out its program. The authority of the funding agency must be geared to support the operational agency and be compatible with the needs and requirements of the system. I must honestly state that unless a single operating agency is given full management control and funding support necessary to implement a unified CCH program, I would have no alternative but to recommend that any FBI management responsibility for a CCH program be terminated."



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[Redacted] President

b6  
b7C

March 21, 1975

[Redacted]  
NCIC Section  
Federal Bureau of Investigation  
Washington, DC 20535

*Institute for Law and  
Social Research*

Dear [Redacted]

Enclosed for your review is a draft copy of the Executive Summary of the CDS Cost and Benefit Study Report. Following within a few weeks will be those portions of the study report which provide detailed cost support for the figures shown in the summary. We hope to transmit the entire draft to you in April.

Delay beyond that anticipated at the time of the last Advisory Board meeting was caused by the need to make several iterations of the very detailed and voluminous CCH cost calculations. Ultimately we were forced to automate the calculations in order to be able to re-calculate when new or revised cost factors were introduced. The final cost calculations were completed on February 20 and, in view of the long delay, we elected to send you the summary results while we are compiling the approximately 400 page draft report.

This summary is not intended for general distribution. The cost figures will certainly change following your review, and the FBI's review, of the detailed cost sections. Please do not distribute copies of this draft.

Following mailing of the balance of the draft we will contact Board members to arrange a review meeting. In the meantime, your comments on the summary and the main report will be valuable for preparation of materials for that meeting.

Very truly yours,

EX-110

[Redacted Signature]

Project Director

ENC. BEHIND FILE

[Redacted]  
1-ENCLOSURE

[Redacted]

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Rev. 3/20/75

CDS COST AND BENEFIT STUDY  
EXECUTIVE SUMMARY

Prepared For  
The Law Enforcement Assistance Administration

Prepared by  
The Institute for Law and Social Research  
1125 15th Street, N.W. Suite 625  
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March 1975

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## 1. INTRODUCTION

A Comprehensive Data System Cost and Benefit Study was undertaken by the Institute for Law and Social Research, Washington, D.C., for the Law Enforcement Assistance Administration, Department of Justice.

The objective of the study was to project the cost and benefits of the Comprehensive Data System (CDS). Emphasis was given to the cost and benefits of the interstate exchange of criminal histories, or Computerized Criminal History (CCH) program.

This study identified potential benefits which justify the development, in some form, of both the criminal history and statistical components of the CDS program. However, the cost estimate of \$555.7 million through 1984 is significantly in excess of planned funding levels. These costs, in the opinion of the project team, are higher than necessary to achieve the anticipated benefits.

Costs somewhat below or significantly above the level projected in this study, however, may actually be experienced depending on future CDS policies. A secondary purpose of this study, then, became the identification of policies which can be altered to reduce the cost of the CDS program.

This executive summary presents a background description of the CDS program, summary descriptions of projected cost and benefits of the CDS program and its components, and a discussion of the policy issues which should be studied for improved cost-effectiveness.

### Background

As an outgrowth of the impetus given to the development of criminal justice information systems by the Omnibus Crime Control and Safe Streets Act of 1968, LEAA conducted a review of state criminal justice information system capabilities in 1969 and concluded that a uniform format for criminal history records would facilitate both the interstate exchange of such records and the compilation of comparable criminal statistical data.

Also in 1969, LEAA launched Project SEARCH (System for Electronic Analysis and Retrieval of Criminal Histories) with the dual purpose of developing a prototype system for the interstate exchange of criminal history data and of enhancing state criminal history capabilities. After Project SEARCH had demonstrated the feasibility of a criminal history exchange system the Attorney General, in late 1970, authorized the FBI to manage such a system.



Currently, the FBI's computerized National Crime Information Center (NCIC) maintains, and responds to state inquiries about, criminal history records of Federal, multistate, and single-state offenders whose records have been entered in the system. This CCH capability of NCIC is, in essence, an improved and automated rap sheet which can be accessed in a matter of seconds. ✓

Concurrent with efforts to develop CCH, LEAA initiated a project to develop a state-level, computer-based method of recording key events relating to persons as they pass through the criminal justice system. Called Offender-Based Transaction Statistics (OBTS), the automated system is expected to be as informative about criminal justice operations as CCH is about suspects and criminals.

### Onset of CDS

In 1972, the CDS program was announced by LEAA as a major milestone in its commitment to improve state and local criminal justice statistical and information system capabilities. Explicit in the program guidelines<sup>1/</sup> was the goal of a voluntary state system, integrated to provide, without unnecessary duplication, both a national criminal history exchange capability and national criminal justice statistics.

To support this goal, CDS included an OBTS/CCH component, linking those two projects to a common data base. In addition, the program included four other components described in the following paragraphs.

Statistical Analysis Center (SAC). The purpose of SAC is to provide a professional staff that will oversee and coordinate a state's criminal justice information and statistical systems; specify data requirements and insure quality control of data collection; coordinate technical assistance to agencies participating in CDS development; supply objective, interpretative analyses of criminal justice data to appropriate agencies; and report criminal justice data accurately and uniformly for national-level comparisons.

Uniform Crime Reports (UCR). The goal of UCR is to establish responsibility in a state-level agency for the centralized collection and reporting of uniform crime data gathered by law enforcement agencies within the state in accordance with standards developed jointly by the FBI and the International Association of Chiefs of Police. The state agency then forwards the collected data to the FBI for inclusion in its national UCR reports.

Management and Administrative Statistics (MAS). This CDS component is intended to improve the effectiveness of criminal justice resource allocation by collecting and analyzing data pertaining to the financial status, personnel, facilities, and equipment of the various criminal justice functions at the state and local levels.

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<sup>1/</sup>Law Enforcement Assistance Administration, Guideline Manual: Comprehensive Data Systems Program, Washington, D.C., rev. 1974, p. 3.

Technical Assistance (TA/CDS). The objective of TA is to provide state-level professional and technical capabilities needed to develop a CDS.

#### Current Status of CDS

Since its inception in May 1972, 35 states have indicated a willingness to become part of CDS: to accept CDS funding on the one hand and to agree to regulations regarding the various components, their development, and assumption of future funding. The states participating are indicated in Exhibit 1 by a check under the CDS Action Plan column.

As of February 1975, 29 states had received CDS grants for one or more components. Exhibit 1 also reveals grant awards to states for each component. (Component funding from other sources is not shown. For example, Florida's CCH system, developed with limited funding from Project SEARCH and major funding from state appropriations, became operational in 1972. Although operational, Florida has not received CDS funding for OBTS/CCH.) Twenty-two states have received funding to establish SAC's; 17 states have received one or more awards for OBTS/CCH; 21 have UCR funding; and 6 and 7 have received MAS and TA/CDS grants, respectively. ✓

#### GAO Observations

Regarding the development of a criminal history exchange system, the General Accounting Office (GAO) issued a report<sup>2/</sup> which concluded that cost estimates of a project of this size were needed before the sponsoring Federal agencies or the Congress could decide whether they were able or willing to meet the financial requirements of the system. Further, since state and local governments were to assume project costs after a reasonable period of Federal assistance, it was vital that they have the information necessary to determine whether they could finance the development and continued operation of the system.

Thus, GAO recommended that either the FBI or LEAA "determine the total cost of developing and operating the criminal history exchange system so that the participants can decide whether they are able, or willing, to meet the system's financial requirements." This recommendation was foreshadowed by [redacted] who, as Commissioner of the Florida Department of Law Enforcement, presented a paper in 1972 at the International Symposium on Criminal Justice Information and Statistics Systems:

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<sup>2/</sup>General Accounting Office, Development of a Nationwide Criminal Data Exchange System--Need to Determine Costs and Improve Reporting (Washington, D.C., Government Printing Office, January 1973).

	Action Plan	OBTS/ CCH	SAC	UCR	MAS	TA/ CDS
Alabama	✓		✓			
Alaska						
Arizona	✓	✓	✓	✓		✓
Arkansas	✓	✓	✓	✓		
California	✓	✓	✓	✓	✓	✓
Colorado	✓		✓			
Connecticut						
Delaware	✓					
District of Columbia	✓	✓	✓			
Florida	✓			✓		
Georgia	✓	✓	✓	✓		
Hawaii	✓		✓	✓		
Idaho	✓	✓		✓		
Illinois	✓					
Indiana	✓					
Iowa						
Kansas						
Kentucky						
Louisiana	✓	✓	✓	✓	✓	✓
Maine	✓	✓	✓	✓		
Maryland	✓	✓		✓		
Massachusetts	✓	✓	✓	✓		
Michigan	✓	✓		✓		
Minnesota	✓	✓	✓	✓		
Mississippi	✓		✓			
Missouri	✓	✓				

✓ PLAN APPROVAL  
OR GRANT AWARD

	Action Plan	OBTS/ CCH	SAC	UCR	MAS	TA/ CDS
Montana	✓		✓		✓	✓
Nebraska						
Nevada	✓		✓	✓	✓	✓
New Hampshire	✓					
New Jersey	✓	✓	✓	✓		
New Mexico	✓		✓			✓
New York	✓		✓	✓		
North Carolina						
North Dakota						
Ohio	✓	✓		✓		
Oklahoma	✓	✓	✓	✓	✓	✓
Oregon	✓		✓	✓		
Pennsylvania						
Puerto Rico						
Rhode Island	✓		✓			
South Carolina	✓					
South Dakota						
Tennessee						
Texas	✓					
Utah	✓	✓	✓	✓		
Vermont						
Virginia	✓			✓	✓	
Washington						
West Virginia						
Wisconsin						
Wyoming						
Totals	35	17	22	21	6	7

"The anticipated benefits from CCH-OBTS in providing documentation on the effectiveness of the criminal justice system are well worth the effort necessary for its development, implementation and operation. . . .

"However, these systems require a major expenditure of time, resources, and money while providing little visible signs of benefit in the short run. Criminal justice managers will be placed in the difficult position of going before legislatures to justify that CCH-OBTS returns are, in fact, worth the expenditure. The cost-utility relationship between the current and proposed systems will be given particular attention, for we are in an era of intense competition with other governmental services for the tax dollar."

These concerns with the quality of available cost projections for the interstate criminal history exchange had two major effects. First, it led to LEAA's initiation of the CDS Cost and Benefit Study and, second, to the recognition that it should produce reliable data to support policy decisions in the following areas:

- . State-level predictions of the cost of criminal justice information system projects, especially CDS components.
- . Federal-level assessment of the financial implications of the total CDS program.
- . State-level assignment of system development priorities to maximize system benefits within resource constraints.
- . State-level recognition of the benefits to be derived from a criminal justice information system.
- . LEAA comparison of cost to results, affecting funding decisions and performance evaluations.

## 2. PROJECT APPROACH

The CDS Cost and Benefit Study was performed over a one-year period with approximately seven months devoted to field study and five months to analysis.

Field study entailed visits to the criminal justice agencies of eleven states, three regional areas, five municipalities, and the FBI. During the field study, the team investigated costs and procedures for:

- . The identification process;
- . Namesearch and fingerprint search methods;
- . Collection and entry of arrest data to OBTS and CCH;
- . Collection and entry of disposition data (arrest, judicial, corrections) to OBTS and CCH;
- . Conversion of criminal histories;
- . Storage of fingerprints and criminal histories;
- . Transmission of criminal histories, both inter- and intra-state; and
- . Interfaces with regional, local, judicial, and corrections information systems.

Preliminary analysis identified the need to automate the CCH cost calculations and the need to perform several support studies. Principal among these studies was an analysis of 6,300 manual criminal histories made available by the FBI. This analysis was made to determine the rate of growth of the number of offenders of each of several types which would exist in an automated criminal history data base (Appendix B, Cost and Benefit Study Report).

The CCH cost calculations were automated on a Tektronix, Model 31, programmable calculator. A detailed description of these calculations is given in Appendix A.1 of the Study Report. The calculations were made at the individual state level and were later summarized by population quintile for presentation in the report. No attempt was made to allocate these estimated costs between state, block grant, or CDS funding sources. The calculations can be rerun to estimate CCH cost under a variety of implementation assumptions. The CCH assumptions programmed for this report are described in Section 4 of this summary. General assumptions applicable to CDS cost estimation are discussed below.

## CDS Cost Estimation Assumptions

The following five assumptions governed the cost estimation process for all CDS components:

- . All states will implement all five CDS components.
- . Political or jurisdictional obstacles will not significantly delay implementation.
- . OBTS and CCH share a common data collection system.
- . UCR will be implemented according to FBI specifications.
- . SAC, MAS, and TA/CDS funding levels are controllable.

All states, Puerto Rico, and the District of Columbia (hereafter referred to as the 52 states) were assumed to build all five CDS components, excepting CCH in the District of Columbia which would continue to be handled by the FBI. Since they could reasonably be expected to complete CDS development by January 1, 1983, the estimates cover a 10-year period, 1975 to 1984. This time frame includes completion of the system and two years of purely operational and maintenance expense.

Political and jurisdictional obstacles that are currently delaying CCH development were not recognized in assessing cost and benefits. Participants were assumed to load criminal records at the completion of system development, to interface with the national index, to update records with 100 percent of NCIC/CCH criterion arrests on a timely basis, and to record dispositions linked to arrests for privacy and other considerations.

While OBTS was separated from CCH for analytical purposes, the two databases were assumed to be linked operationally by a centralized, single-entry, data collection procedure satisfying OBTS and CCH requirements simultaneously. OBTS development and operating costs were estimated as if states added OBTS data collection and report generation capabilities to existing CCH systems.

States receiving UCR funding under CDS were assumed to proceed according to the standard FBI implementation procedure and to produce a system to FBI specifications.

Funding policies for the SAC, MAS, and TA components were assumed to continue past practices. The highly controllable nature of expenditures for these components made an elaborate model unnecessary. However, the future cost of these components is very sensitive to changes in LEAA funding policies.

#### Cost Estimation Methodology

SAC, UCR, MAS, and TA/CDS costs were projected from a survey of grants already awarded to states. From this survey and consultations with the FBI concerning UCR, the LEAA funding policy for these components was inferred. The cost estimates were produced by extrapolating this policy to the remaining states over future years.

OBTS/CCH, with its relatively uncontrollable future financial requirements, demanded a more elaborate estimation effort. Field trips were made to 11 states where significant OBTS/CCH planning or implementation had taken place. During the field trips, information was collected on the designs of the systems, past and anticipated expenditures, telecommunications and computing equipment requirements, and personal services required for both the automated system and the manual system being replaced.

Based on the 11-state survey, OBTS/CCH cost elements were classified as either development or operating costs. Separate OBTS and CCH development cost estimates were made by extrapolating data from the study states to the remaining states.

To estimate OBTS/CCH operating costs, a model was constructed in the form of flowcharts and task descriptions, depicting state and Federal processing operations. Data from a sample of FBI manual criminal histories were used to establish a relationship between the annual volume for each task and arrest volumes predicted for 1975 through 1984. Unit costs for each task, adjusted for regional salary differentials, were used to convert processing volumes into CCH operating cost estimates by year.

Annual OBTS operating costs were estimated using the same model and were computed as the cost of augmenting the CCH data base with the required OBTS data. Development and operating estimates were combined to produce annual OBTS and CCH cost estimates.

### 3. CDS COST SUMMARY

Annual and total projected costs for the CDS program are shown in Exhibits 2 and 3. As shown in Exhibit 2, total cost to develop and operate the entire CDS program for the 10-year period 1975 to 1984 is estimated to be \$403.8 million, or \$555.7 million after adjusting for inflation. Annual CDS costs by 1984, after completion of development, are projected at \$47.5 million or \$77.0 million with adjustments for inflation.

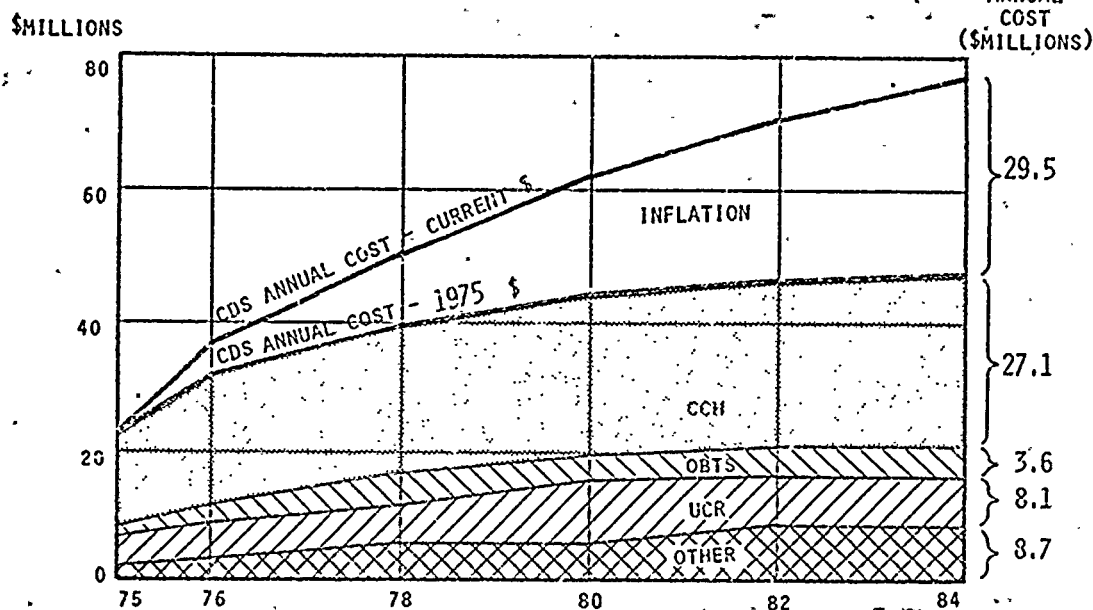
CDS COMPONENT	CDS COST BY YEAR - CONSTANT (1975) \$ MILLIONS										Total Ten-Year Cost
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	
CCH	16.9	21.1	19.3	22.7	23.8	25.2	25.6	26.1	26.6	27.1	234.4
OBTS	1.0	2.2	3.2	4.5	4.2	4.3	4.5	4.0	3.4	3.6	34.9
UCR	4.3	4.9	5.6	6.2	6.8	7.6	8.3	8.1	8.1	8.1	68.0
Other:											
SAC	2.2	2.7	3.2	3.7	4.2	4.7	5.2	5.2	5.2	5.2	41.5
MAS	.3	.5	.8	1.0	1.2	1.4	1.7	1.7	1.7	1.7	12.0
TA/CDS	.4	.6	.8	1.1	1.3	1.6	1.8	1.8	1.8	1.8	13.0
Total CDS Program (Constant Dollars)	25.1	32.0	32.9	39.2	41.5	44.8	47.1	46.9	46.8	47.5	403.8

CDS COMPONENT	CDS COST BY YEAR - CURRENT \$ MILLIONS										Total Ten-Year Cost
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	
CCH	16.9	23.4	23.0	28.8	31.7	35.0	37.0	39.2	41.5	44.0	320.5
OBTS	1.0	2.4	3.8	5.7	5.6	6.0	6.5	6.0	5.3	5.8	48.1
UCR	4.3	5.4	6.7	7.9	9.1	10.5	12.0	12.2	12.6	13.1	93.8
Other:											
SAC	2.2	3.0	3.8	4.7	5.6	6.5	7.5	7.8	8.1	8.4	57.6
MAS	.3	.6	1.0	1.3	1.6	1.9	2.5	2.6	2.7	2.8	17.3
TA/CDS	.4	.7	1.0	1.4	1.7	2.2	2.6	2.7	2.8	2.9	18.4
Total CDS Program (Current Dollars)	25.1	35.5	39.3	49.8	55.3	62.1	68.1	70.5	73.0	77.0	555.7

EXHIBIT 2: CDS COST BY YEAR IN CONSTANT AND CURRENT DOLLARS

By 1981, CDS annual costs, measured in 1975 dollars, will have almost leveled off below \$50 million. The leveling shown in Exhibit 3 occurs because of the completion of development efforts and because the declining cost of computer and telecommunications technology partially offsets the small, continuing growth of personnel costs.





COST OF TOTAL CDS PROGRAM  
BY YEAR & CDS COMPONENT

	1984 OPERATIONAL COST (\$ MILLIONS)	
	CONSTANT (1975) DOLLARS	CURRENT (1984) DOLLARS
CCH	27.1	44.0
OBTS	3.6	5.8
SAC	5.2	8.4
UCR	8.1	13.1
MAS	1.7	2.8
TA/CDS	1.8	2.9
TOTAL	47.5	77.0

EXHIBIT 3: COST OF TOTAL CDS PROGRAM

The accuracy of this forecast depends upon modification of trends and policies which differ from two of the principal assumptions upon which the cost estimates were based. The areas of divergence from these two assumptions are discussed in the following paragraphs.

Medium-cost record conversion policy. This assumption, made in Section 4, expects a medium cost, "first-offender automation policy" for manual criminal history conversion. However, the more costly "re-entrant conversion policy" is presently in use in most states. If continued, this latter policy would more than double the OBTS/CCH personnel costs included in this estimate.

A specific timetable for CCH start-up in each of the 52 states. This assumption is also stated in Section 4 as a basis for CCH cost projection. Present expectation differs from two elements of this timetable:

- .. All CDS components were assumed to become operational no later than January 1, 1983. Actually several of the less advanced states have no present plans to participate in CDS. The failure of these states to participate will reduce CDS funding requirements only slightly since most are included in the 20 smallest states comprising population quintiles 4 and 5 and accounting for only nine percent of overall CDS cost (Exhibit 6, Section 4). Non-participation by some states will, however, cause the loss of some potential savings for the FBI.

- . States already participating in OBTS/CCH are assumed to have kept up with their workloads. Few of the states already participating in CCH have been able to process arrest and disposition records without building up large processing backlogs. Two states have withdrawn from NCIC/CCH after the date assumed in this study for start-up of their system operation, and other states have dropped one or more entire years of data from their entry process in order to catch up. Therefore, actual 1975 costs will be somewhat less than those projected, and the missing costs would add to future-year projections when those states are able to process their outstanding backlogs.

Cost estimates were made assuming the development of a healthy CCH system and CDS program. Since the above assumptions may not be realizable, the CDS cost projections may require adjustment. However, new cost projections under alternative assumptions can be produced rapidly in the future because the calculations which produced them were automated.

#### 4. CCH COST ESTIMATES

This section discusses specific CCH assumptions which supplement the general CDS assumptions described in Section 2. The construction of a cost model for CCH operation and development is then outlined, followed by a summary of the projected CCH operating and development costs.

##### Assumptions for CCH Cost Estimation

Although NCIC has broadly defined a national criminal history exchange system, many details affecting CCH costs are currently unspecified. State record conversion criteria, the path of disposition data from courts to state repositories, and the date each state will contribute its first records to NCIC/CCH exemplify cost factors that have not, or cannot, be fully specified by LEAA or the FBI. Therefore, it was necessary to precede actual CCH cost estimation by specifying general assumptions reflecting (1) policies in the 11 states visited during this study, (2) announced intentions of FBI/NCIC and LEAA, (3) anticipated legislative activity, and (4) the opinions of informed observers. The principal assumptions centered around:

- . Single-state/multi-state configuration;
- . Medium-cost record conversion policy;
- . 100 percent fingerprint and disposition submission;
- . Generally available technology;
- . Cost/performance improvements in computing and telecommunications technology;
- . Specific timetable for CCH start-up in each of the 52 states; and
- . System response types are generally consistent with current NCIC/CCH capabilities.

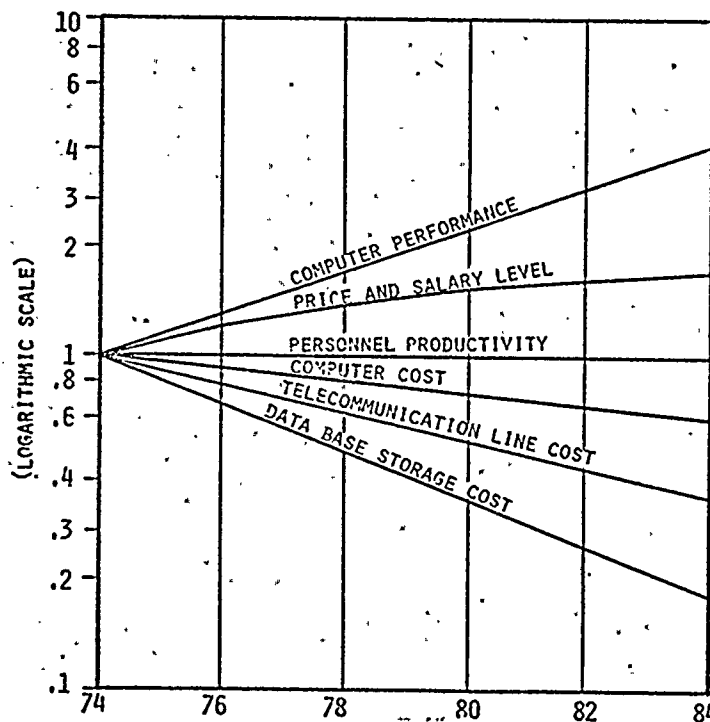
Single-state/multi-state configuration. All single-state, non-Federal, criminal histories were assumed to reside in state data bases while multistate and Federal criminal histories are stored in NCIC/CCH. The NCIC central file also contains an index to all single-state histories. The index contains sufficient identification data to permit retrieval of the criminal history from a state data base. This assumption is in accordance with an announced NCIC/CCH policy which has yet to be implemented. Present practice calls for a procedure in which single-state records also reside in the NCIC/CCH data base.

Medium-cost record conversion policy. Each state was assumed to establish automated records for all first offenders arrested after its CCH begins operation. Prior histories will be converted only for non-automated multistate offenders who are being arrested for the first time in a new state and for automated subjects whose NCIC/CCH records are found by a state to be incomplete. Therefore, estimated conversion cost lies between the less expensive policy of automating only first-offender records and the more expensive policy of converting manual histories of all subjects rearrested after CCH begins operation.

100 percent fingerprint and disposition submission. Legislation was assumed to exist requiring that each state receive fingerprint-supported reports of all arrests for NCIC criterion offenses. Also Federal and state security and privacy laws were assumed to require that each arrest report be supplemented by a record of the dispositions of all charges.

Generally available technology. All participants were assumed to operate well within technological frontiers anticipated through the estimation period. Data storage, computer processing, and telecommunications costs were all assumed to decline at rates conservatively reflecting recent experience. Widespread installation of facsimile equipment for fingerprint transmission was not assumed nor was automated fingerprint identification by either the FBI or the states.

Cost/performance improvements in computing and telecommunications technology. The assumed indices for improvement in computing



power and cost over the 10-year period are shown in Exhibit 4. Computer performance for a standard installation is expected to improve by a function which approximates 14 percent each year, while the cost of that installation is expected to decline by 5 percent per year (before adjusting for inflation). Telecommunication line costs will decline at approximately 9 percent and data base storage devices at 15 percent each year. Personnel productivity, measured by output per man-hour,

EXHIBIT 4: INDICES OF COST AND PERFORMANCE

is assumed to be constant over the projection period. Price and salary levels were assumed to increase according to forecasts appearing in the FY 1976 U.S. Budget.

A specific timetable for CCH start-up. CCH cost is very sensitive to the time phasing of state participation. Therefore, a timetable was prepared based on the earliest expected date that each state could attain sufficient technical capability. The timetable reflects the opinions of LEAA regional systems specialists, CDS project managers, and NCIC personnel. However, it is optimistic because all states were assumed to participate, and lengthy delays for resolution of political and bureaucratic issues were not included. The timetable implies that twelve states, with about 60 percent of all arrests, will have operating CCH systems by 1976 and that all states will be operational by 1981.

System response types are generally consistent with current NCIC/CCH capabilities. System response types include: on-line remote name-search, on-line remote criminal summary production, on-line full criminal history retrieval for record maintenance only, and off-line (batch) output of criminal histories for mailing to requesting agencies within 24 hours.

Additional CCH assumptions are discussed in Appendix A of the Cost and Benefit Study Report.

#### CCH Operating-Cost Model

A CCH operating-cost model was used to calculate all elements of annual CCH cost for each state and for each year of operation as a function of the predicted arrest volume for each year. The model consists of:

- Flowcharts describing state and Federal CCH processing of arrest updates, disposition updates, and inquiries;
- A description of the work content for each task illustrated on the flowchart;
- Unit-cost estimates for each task;
- Definitions of the 16 types of arrestees moving through the flow paths; and
- Lists of tasks applicable to each arrestee type during disposition processing and inquiry.

An excerpt from a cost model flowchart is shown in Exhibit 5. It illustrates the decision-making processing for conversion of an arrestee's prior history based upon a criminal summary response from NCIC. The model depicts arrestee type E, a non-automated subject

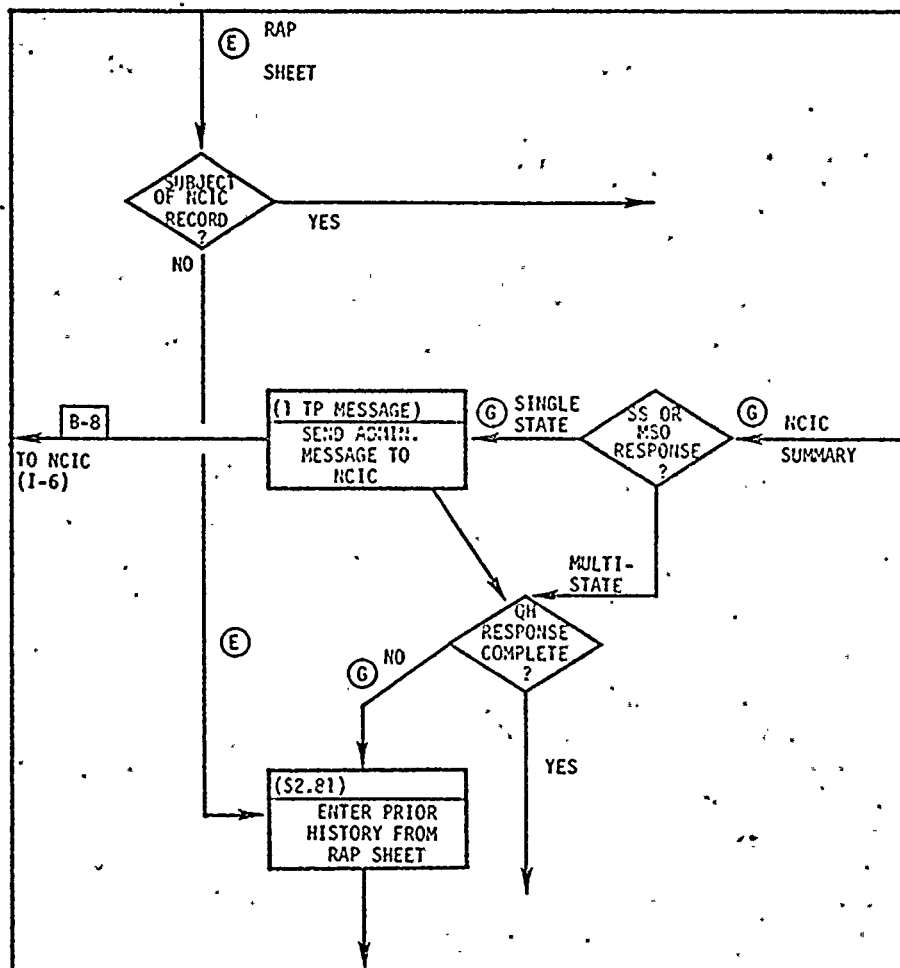


EXHIBIT 5: EXCERPT FROM COST MODEL FLOWCHART

becoming a multistate offender with the current arrest, incurring a \$2.81 conversion cost in the state of current arrest. Arrestee type G, whose single-state record established by another state lacks one or more prior arrests in the current state, would incur the \$2.81 and automatically generate one administrative telecommunication message to NCIC. The message would advise NCIC to retrieve the other state's history and create a full multistate record.

Cost calculations, for the representation given in Exhibit 5, require estimates of the proportion of arrestees belonging to each type. These estimates were drawn from a sample of FBI manual criminal histories. The time intervals between prior arrests on the manual records were used to predict the intervals between future arrests to be recorded in CCH under the assumed conversion policy. Separate estimates were made for subjects with prior single-state, multistate, and Federal records. Joint application of the time interval and interstate mobility distributions to a linear projection of recent arrest trends generated arrest forecasts by type of arrestee. The cost model was used to translate these arrest forecasts into CCH operating cost estimates.

## CCH Development Cost Model

Development cost estimation did not require the rigorous modeling necessary for operational cost estimation. Development costs were extrapolated from an analysis of the actual CCH cost experience of six states. Field study provided cost figures from Arizona, Georgia, Minnesota, and New Jersey. Published reports provided additional data from New York and Mississippi. Supporting detail was also extracted from a review of all OBTS/CCH grant applications.

Extrapolation of development cost from the study states to the 52 states was based on the following assumptions:

- . A state data communication system was assumed to be in place with lines, interfaces and terminals to major law enforcement agencies, and with an interface to NCIC. A portion of the state data communication system's annual operating cost was prorated to CCH on the basis of transaction volumes.
- . A state data processing center was assumed to be in place for processing both CCH and other law enforcement applications. State data processing center costs were prorated to CCH as an operating cost in a similar manner.
- . A full state fingerprint identification capability was assumed to be able to process fingerprint cards for all NCIC criterion arrests. Cost of additional fingerprint processing generated by mandatory 100 percent fingerprint submission is attributed to CCH as an operating cost.
- . Development tasks were assumed to be completed in the following time periods:
  - Year 1 - systems definition and design,
  - Year 2 - start implementation, start staffing,
  - Year 3 - full staff hired, start operation.
- . The size of CCH management and support staffs were estimated as a function of the state's population.
- . Excluded from development costs but treated above as operating costs are:
  - computer upgrade cost,
  - historical records conversion and data entry, and
  - additional communication lines and terminals to major prosecutors' offices.

*Changes  
not  
required*

The development costs were summarized in four categories: preliminary development, implementation, general support and administrative, and investment.

Preliminary development costs include the cost of preparing master plans, action plans, and grant applications. Also included are requirements analysis/systems design and the cost of designing the CCH reporting forms and procedures for disposition reporting.

Implementation costs include software preparation and computer time.

General support and administrative costs include staffing and supervision, facilities rental, automotive rental, travel and per diem expense, supplies and office expense, and indirect cost. Staffing costs, exclusive of data preparation staff, were made by projecting numbers of personnel by state population quintile<sup>1/</sup> and by applying the average grade salaries for each quintile. Data preparation staff size was computed on the basis of CCH data entry workloads estimated in the operational cost model. The calculation of staffing costs is described in detail in Appendix A. 2 of the Cost and Benefit Study Report.

Investment Costs included office equipment only.

Development costs were extrapolated by this method for 41 states. Individual estimates were made for the eleven other states.

### CCH Cost Summary

CCH development and operating costs, estimated by state, were grouped by population quintiles for presentation in this report. The characteristics of the population quintiles are shown in Exhibit 6.

The 10 largest states, grouped in quintile I, are expected to establish their state data bases much earlier than the smaller states. That expectation is consistent with the fact that 60 percent of all arrests are concentrated in those states. Both the early system start-up and the large arrest volumes help explain why 44 percent of CCH cost is attributed to those states. Exhibit 6 also shows 27 percent of estimated CCH cost attributed to units within the FBI. Most of this cost is accounted for by NCIC/CCH data entry for arrests by Federal agencies, non-participating states, and the District of Columbia, and by FBI Identification Division activities in support of CCH.

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<sup>1/</sup>Population quintiles are described below and in Exhibit 6.



Population Quintiles	Characteristics				CCH Cost % of Total
	State Groups Ordered by Population	% of Natl. Arrests	% of Natl. Population	Median CCH Start Date	Number of States
I. Ten Largest States	FL, CA, NY, PA, IL, TX, MI, NJ, MA, OH	60%	54%	'74	10
II.	GA, MN, LA, VA, MO, MD, IN, NC, TN, WI	19%	21%	'78	10
III.	SC, CO, PR, AL, CT OK, WA, IA, MS, KY, KS	12%	15%	'79	11
IV.	AZ, VT, ME, WV, HI, NM, NB, RI, OR, AR	7%	7%	'78	10
V. Ten Smallest States	ID, NV, MT, DL, WY, NH, SD, ND, VT, AK	2%	3%	'79	10
FBI/Ident. & NCIC/CCH					27%

EXHIBIT 6: CHARACTERISTICS OF POPULATION QUINTILES

Exhibit 7 disaggregates CCH cost into development and operating expense by year for each quintile and for the FBI. The substantial operating cost estimated for the largest quintile reflects the extensive CCH development work already accomplished by those states. In all quintiles, estimated operating cost rises as states join the system, until 1981 when all states are assumed to be operational. The fairly level cost profile following 1981 reflects the interaction of increasing transaction volumes, counterbalanced by decreasing costs for data processing, telecommunications, prior history conversion, and error correction.

The substantial proportion of development cost attributed to quintile I indicates that despite large expenditures in past years, completion of systems currently being developed will require large expenditures in the future. Generally, development costs decrease with state population because smaller states need less of the following components: training and equipment for coding and entry clerks, sophisticated software to handle large transaction volumes and data bases, and field personnel for liaison with local agencies. An exception to this pattern is quintile II, where substantial previous development in Minnesota, Georgia, and Louisiana lowers expected future development cost below that of quintile III.

CCH PARTICIPANTS	COST CATEGORIES	CCH COST BY YEAR (\$ Millions)										Total Ten-Year Cost
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	
Quintile 1	Development Cost	4.3	4.5	.4	0	0	0	0	0	0	0	9.2
	Operating Cost	7.2	8.4	8.9	9.8	9.8	9.9	10.0	10.1	10.2	10.3	94.6
	Total Cost	11.5	12.9	9.3	9.8	9.8	9.9	10.0	10.1	10.2	10.3	103.8
Quintile 2	Development Cost	.8	1.2	1.3	.9	.4	.3	0	0	0	0	4.9
	Operating Cost	0	.7	1.0	2.1	2.9	3.2	3.5	3.5	3.5	3.5	23.9
	Total Cost	.8	1.9	2.3	3.0	3.3	3.5	3.5	3.5	3.5	3.5	28.8
Quintile 3	Development Cost	.4	.8	1.5	1.4	1.0	.5	0	0	0	0	5.6
	Operating Cost	0	0	0	.7	1.3	2.0	2.3	2.3	2.3	2.3	13.2
	Total Cost	.4	.8	1.5	2.1	2.3	2.5	2.3	2.3	2.3	2.3	18.8
Quintile 4	Development Cost	1.0	1.0	.7	.7	.7	.4	0	0	0	0	4.5
	Operating Cost	.3	.4	.5	.6	.7	1.0	1.4	1.4	1.4	1.4	9.1
	Total Cost	1.3	1.4	1.2	1.3	1.4	1.4	1.4	1.4	1.4	1.4	13.6
Quintile 5	Development Cost	.2	.5	.5	.9	.6	.4	0	0	0	0	3.1
	Operating Cost	0	0	.2	.2	.4	.5	.6	.6	.6	.6	3.7
	Total Cost	.2	.5	.7	1.1	1.0	.9	.6	.6	.6	.6	6.8
FBI/Ident. and NCIC/CCH	Development Cost	0	0	0	0	0	0	0	0	0	0	0
	Operating Cost	2.7	3.6	4.3	5.4	6.0	7.0	7.8	8.2	8.6	9.0	62.6
	Total Cost	2.7	3.6	4.3	5.4	6.0	7.0	7.8	8.2	8.6	9.0	62.6
All Participants	Development Cost	6.7	8.0	4.4	3.9	2.7	1.6	0	0	0	0	27.3
	Operating Cost	10.2	13.1	14.9	18.8	21.1	23.6	25.6	26.1	26.6	27.1	207.1
	Total Cost	16.9	21.1	19.3	22.7	23.8	25.2	25.6	26.1	26.6	27.1	234.4

EXHIBIT 7 : ESTIMATED CCH DEVELOPMENT AND OPERATING COSTS BY PARTICIPANT

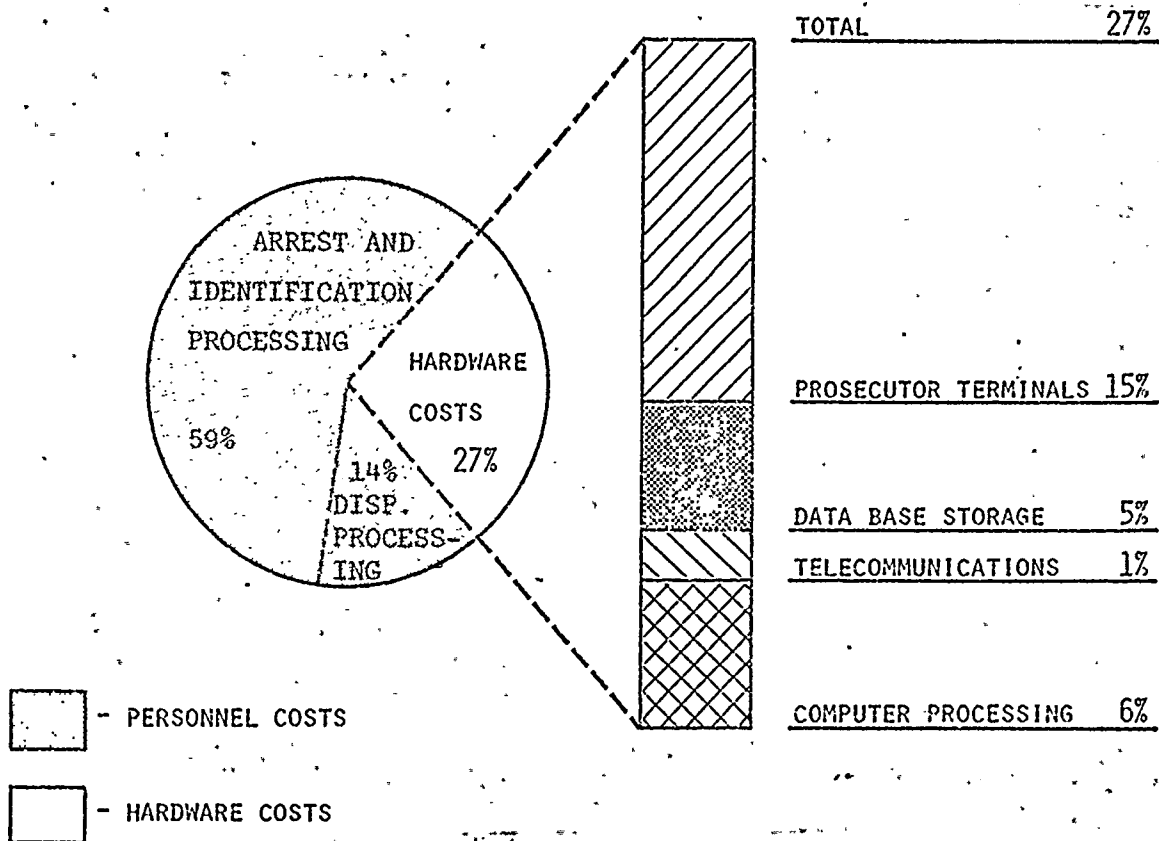


EXHIBIT 8: ELEMENTS OF CCH COST

Exhibit 8 disaggregates CCH operating cost by major cost elements. It indicates that 59 percent of all CCH cost is incurred for labor and non-EDP equipment for identification and arrest record processing in the states. An additional 14 percent is allocated to disposition collection and updating, and the remaining 27 percent to hardware and EDP personnel. Within that 27 percent, the largest component is installation of terminals in prosecutors' offices. (On-line receipt of criminal summaries, and a consequent need for lines and terminals, is required to realize benefits for prosecutors; however, it was assumed that a hard copy full criminal history, mailed within 24 hours of request, would satisfy court information needs. Therefore, lines and terminals to courts were not included in the cost estimate.)

In summary, the analysis of CCH costs showed small development costs relative to operating costs. Within operating costs, increasing volumes raise personnel requirements throughout the forecast period; ever-improving technology decreases the cost of data base storage, telecommunications, and computer processing through the forecast period.

## 5. STATISTICAL COMPONENTS COST ESTIMATES

This section includes cost estimates for the OBTS, UCR, SAC, MAS, and TA/CDS components of CDS.

### OBTS Costs

OBTS cost estimates were based on the following principal assumptions:

- The acronym "OBTS" stands for Offender-Based Transaction Statistics, rather than for Offender-Based Tracking System. Real-time processing is not assumed.
- State-level data collection and data entry, processed in common with CCH, was assumed. OBTS was charged only with the marginal cost for data items not required by CCH.
- OBTS forms contain a common identifier which permits the linking of multiple offenses for the same individual.
- Only state-level OBTS costs were included, i.e., Federal, regional, and local costs were specifically excluded from the OBTS cost estimate.
- Development costs for OBTS were incurred during the two years following CCH start-up.

OBTS costs are summarized in Exhibit 9 by population quintile. Development costs for the ten smallest states range from \$145,000 to \$170,000 for the two-year development period. In the largest states, the range extends from \$240,000 to \$410,000. Individual estimates were made for 11 advanced states and for the District of Columbia.

Development costs for the ten-year period total \$13.9 million, and operating costs total \$21.0 million.

### UCR Costs

UCR cost estimates were based on the assumption that FBI specifications for a UCR system would be followed, that each state would require a two-year development period, that all states would begin

PARTICIPANT	COST CATEGORIES	OBTS COST BY YEAR - CONSTANT (1975) \$ MILLIONS										Total Ten-Year Cost
		1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	
Quintile 1	Development	.8	.8	1.0	1.2	.2	0	0	0	0	0	4.0
	Operating	0	1.0	1.3	1.5	1.7	1.9	2.0	2.1	2.2	2.3	16.0
	Total	.8	1.8	2.3	2.7	1.9	1.9	2.0	2.1	2.2	2.3	20.0
Quintile 2	Development	.1	.1	.3	.7	.8	.5	.3	.2	0	0	3.0
	Operating	0	0	.1	.1	.1	.3	.4	.5	.6	.6	2.7
	Total	.1	.1	.4	.8	.9	.8	.7	.7	.6	.6	5.7
Quintile 3	Development	0	0	0	.3	.8	.8	.7	.3	0	0	2.9
	Operating	0	0	0	0	0	0	.2	.3	.3	.4	1.2
	Total	0	0	0	.3	.8	.8	.9	.6	.3	.4	4.1
Quintile 4	Development	.1	.3	.3	.3	.3	.3	.4	.2	0	0	2.2
	Operating	0	0	0	.1	.1	.1	.1	.1	.2	.2	.9
	Total	.1	.3	.3	.4	.4	.4	.5	.3	.2	.2	3.1
Quintile 5	Development	0	0	.2	.3	.2	.4	.4	.3	0	0	1.8
	Operating	0	0	0	0	0	0	0	0	.1	.1	.2
	Total	0	0	.2	.3	.2	.4	.4	.3	.1	.1	2.0
Total All Participants	Development	1.0	1.2	1.8	2.8	2.3	2.0	1.8	1.0	0	0	13.9
	Operating	0	1.0	1.4	1.7	1.9	2.3	2.7	3.0	3.4	3.6	21.0
	Total	1.0	2.2	3.2	4.5	4.2	4.3	4.5	4.0	3.4	3.6	34.9

EXHIBIT 9 OBTS DEVELOPMENT AND OPERATING COST BY PARTICIPANT

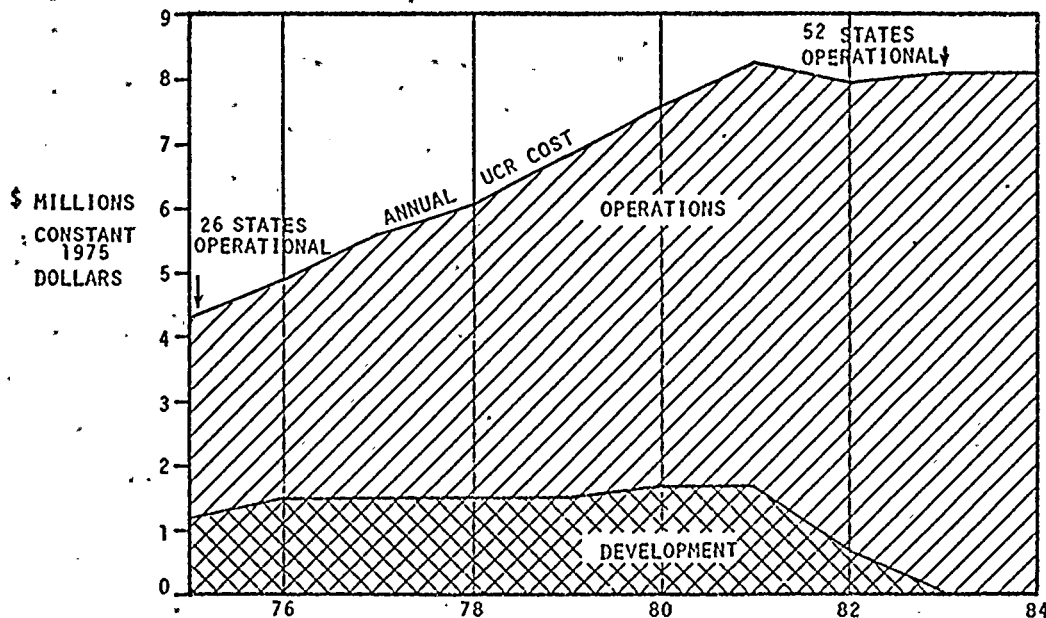


EXHIBIT 10: UCR DEVELOPMENT AND OPERATING COST BY YEAR

development before January 1, 1981, and that, consequently, all states would be fully operational by January 1, 1983.

Development costs were assumed to be equal for all states. Development costs of \$200,000 for year 1 and \$175,000 for year 2 were based on a consistent pattern of costs observed in the study states. An observed median operations cost of \$156,400 was applied to year 3 and beyond.

UCR operations and development are shown in Exhibit 10. A cost leveling is forecast at \$8.1 million by 1983, at the completion of the development phase. Ten-year development costs total \$11.2 million, operations cost will be \$56.8 million, totaling \$68.0 million or, with adjustments for inflation, a ten-year total of \$93.8 million.

#### SAC, MAS and TA/CDS Costs

Cost estimates for the SAC, MAS, and TA/CDS components were based on the assumption that funding for these components would continue at present levels. They do not generate uncontrollable expenditure requirements and have negligible development costs. All states were assumed to be operating these components by January 1, 1981.

Median costs for active or recently completed projects were used in the cost projections. On an annual basis, median costs were:

SAC	\$100,000
MAS	31,900
TA/CDS	34,700

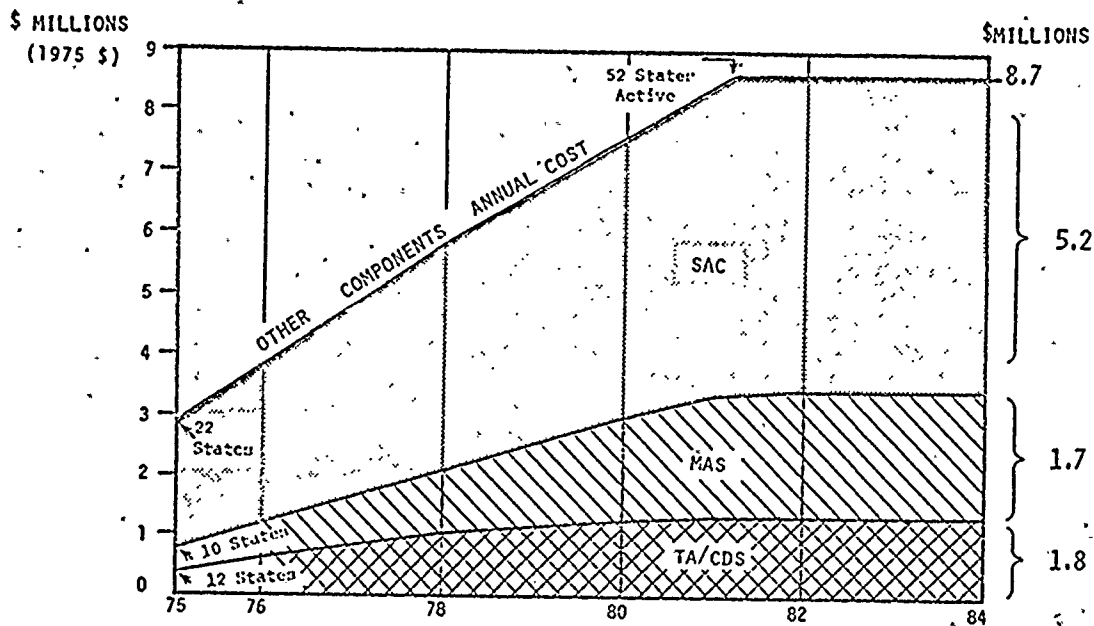


EXHIBIT 11: OTHER CDS COMPONENTS COST BY YEAR  
(SAC, MAS, TA/CDS)

A cost summary for these three components is shown in Exhibit 11. A level annual cost of \$8.7 million will be reached by 1981. Ten-year total costs are shown below.

	Ten-Year Total Cost (\$Millions)	
	(Constant Dollars)	(Current Dollars)
SAC	\$41.5	\$57.6
MAS	12.0	17.3
TA/CDS	13.0	18.4
TOTAL	\$66.5	\$93.3

## 6. CDS BENEFITS

A measurement method for CDS benefits was needed for evaluation of future CDS policies. Assignment of dollar values to CDS benefits, other than for direct cost savings, was rejected early in the project as a measure method. It was believed that subjective assignment of dollar values, in the absence of a competitive market for CCH products, would be misleading and of less value for policy analysis than would be a cataloging of objectively measurable CDS uses. This project has therefore attempted to (1) identify realizable CDS benefits and (2) to quantify the benefits as a basis for policy evaluation.

### CCH Benefits

Six areas for CCH benefit assessment are examined in this section:

- . Improvement of the criminal justice decision making process;
- . Federal agency operations;
- . Community protection;
- . Protection of individual rights;
- . Criminal justice systems improvements; and
- . Cost displacement, or potential savings to be realized from the automation of manual processes.

Improvement of the Criminal Justice Decision-Making Process. Benefit assessment in this area was concerned with the CCH system's capability for improving both the quality and speed of criminal justice decision-making. The decision processes, and the potential recipients of CCH benefits are listed below.

The principal operational benefits of CCH are the potential improvements in the quality and timeliness of criminal justice decisions. These benefits result from the availability of information from CCH which is not otherwise available within a usable time period (e.g., a record of crimes committed in a distant jurisdiction). Rapid CCH response, particularly the availability of a criminal summary within seconds, is necessary for realization of these decision-making benefits.



Criminal Justice Decision Process	Agency Receiving Principal CCH Benefit			
	Police	Prosecutor	Judiciary	Corrections
Investigation	✓			
Citation, Arrest, and Minor Case Disposition	✓	✓		
Jailing	✓			
Screening & Arraignments		✓	✓	
Plea Negotiation and Trial Preparation		✓	✓	
Sentencing and Supervision of Sentenced Offenders			✓	✓

CCH impact on the quality of individual decisions can be determined through comparisons between the volume of those decisions, and the characteristics of the criminal justice system of the future that would be affected by "speedy trial" legislation, and recommendations of the National Advisory Committee on Criminal Justice Standards and Goals. Exhibit 12 presents an estimate of the numbers of decisions in 1975 and 1984 and an indication of decision time constraints based on recommendations of the National Advisory Commission (NAC). This analysis indicates that by 1984, CCH could potentially contribute to the quality of over 19 million decisions annually, and that it might improve the quality of those decisions, specifically those which must be made within a matter of hours. Such decisions number in excess of 12 million according to the same estimate.

Exhibit 13 shows a projection to 1984 of the number of arrests by year and the number of decisions potentially supportable by CDS. During the 10-year period 1975-1984, there are over 165 million potentially supportable decisions. With the implementation schedule assumed for cost estimation, CCH will be able to support nearly 73 million, or 44 percent of the potentially supportable decisions. By 1984, CCH support will increase to 62 percent and will continue to increase.

DECISION PROCESSES SUPPORTED BY CCH INQUIRIES	NUMBER OF POTENTIALLY SUPPORTABLE DECISIONS (MILLIONS)		MAXIMUM RESPONSE TIME (PERIOD FOLLOWING ARREST)	NUMBER OF RESPONSES REQUIRED WITHIN 6 HOURS IN 1984 (MILLIONS)
	1975	1984		
1. Investigations (Screening of suspects by investigators)	3.01	4.14	unknown	---
2. Citation, Arrest and Minor Case Disposition (Field officer's decision to issue a citation or make a physical arrest; summary of processing of minor cases)	5.02	6.90	6 hours	6.90
3. Jailing (Booking individuals into local jails)	1.47	2.03	6 hours	2.03
4. Screening and Arraignment (Decisions as to further processing by prosecutor and pretrial release by the magistrate)	2.51	3.46	6 hours	3.46
5. Plea Negotiations and Trial Preparation (Misdemeanor Pleas and Trials) (Felony Pleas and Trials)	.59 .40	.81 .55	30 days 60 days	--- ---
6. Sentencing and Supervision of Sentenced Offenders (Presentence investigations, incarceration and interstate probation, parole arrangements)	.90	1.24	unknown	---
TOTAL	13.90	19.13		12.39

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EXHIBIT 12: RESPONSE TIME REQUIREMENTS FOR CCH INQUIRIES

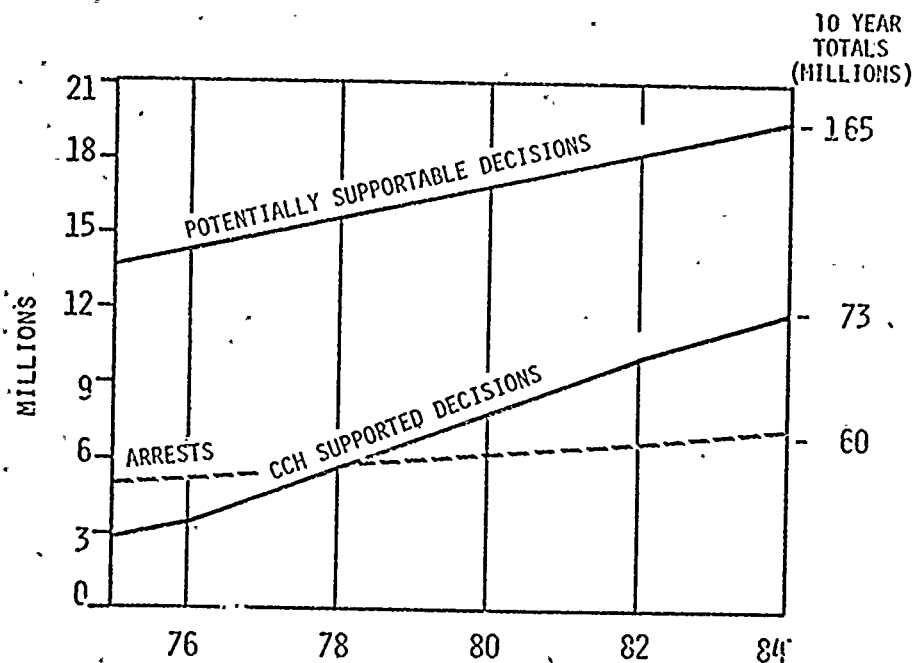


EXHIBIT 13: DECISIONS SUPPORTED BY CCH BY YEAR

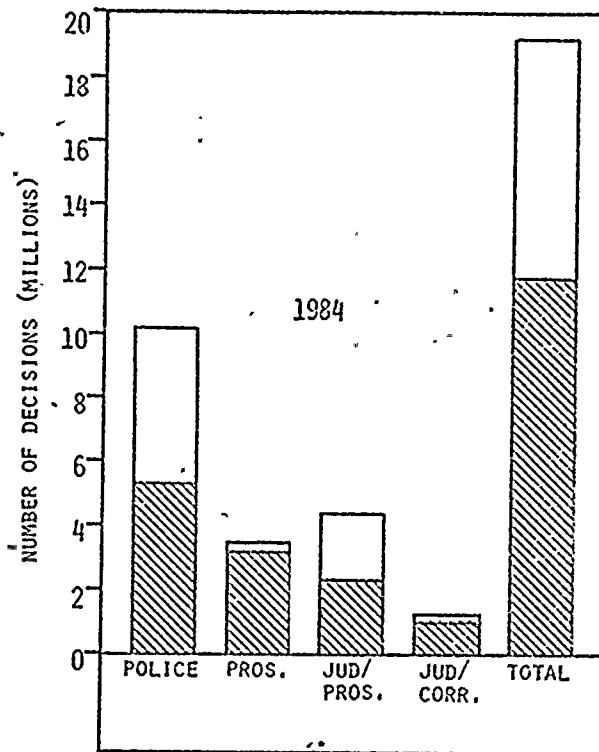
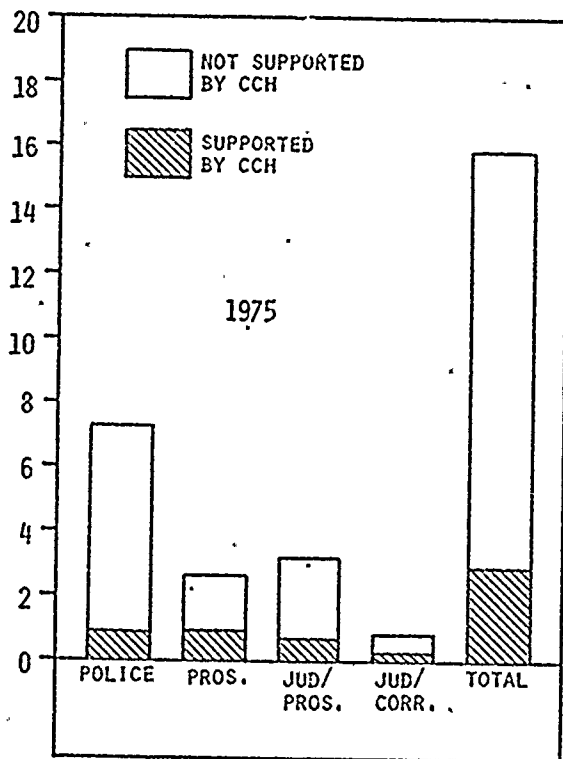


EXHIBIT 14: DECISIONS SUPPORTED BY CCH BY CRIMINAL JUSTICE FUNCTION

Exhibit 14 shows the six decision-making processes in four functional groupings: (1) police, (2) prosecutor, (3) judiciary and prosecutor, and (4) judiciary and corrections. Of specific interest in the 1984 portion is the major support afforded in non-police areas. Prior to 1984, the major beneficiaries will be the prosecution, the judiciary and correctional officials.

Federal Agency Operations. CCH will benefit those Federal agencies with criminal justice responsibilities as well as those making inquiries associated with employment and licensing decisions (pursuant to Public Law 92-544), and Federally chartered or insured banking institutions. Federal agencies in the Department of Justice which will benefit from CCH are the Federal Bureau of Investigation, the Immigration and Naturalization Service, Bureau of Prisons, U.S. Marshall Service, and Drug Enforcement Administration. Within the Department of Treasury, examples are U.S. Secret Service, Bureau of Customs, and Bureau of Alcohol, Tobacco, and Firearms. Examples of other affected Federal agencies are the U.S. Postal Service, U.S. Civil Service Commission, and Small Business Administration.

Federal agencies are a major user of the present NCIC/CCH system. During the month of September, 1974, nearly 30 percent of all NCIC/CCH criminal summary inquiries were from Federal agencies, principally the U.S. Secret Service, FBI Field Offices, the Bureau of Customs and the Bureau of Prisons. This relatively high Federal use no doubt reflects the large percentage of the CCH data base currently devoted to Federal offenders. As state record contributions grow, state inquiry volumes should follow, decreasing the proportion of total inquiries that are made by Federal agencies. The sole Federal consumer of on-line full criminal histories in September 1974 was the U.S. Bureau of Prisons with inquiries totaling 53.6 percent of the national traffic.

Community protection. Community protection will be improved in several ways through the use of CCH information. These involve the enforcement of criminal statutes directed at recidivists; special handling of career criminals; assessment of the danger potential of persons in custody; awareness of previous escapes from custody and failures to appear for trial; and screening of persons for positions of public trust.

Protection of individual rights. CCH can have both positive and negative effects on individual rights.

Positive effects. CCH will assist in minimizing unnecessary incarceration by providing more information at the time of bail hearing. A potential benefit exists for reduction of danger to persons in jail by identifying and isolating dangerous inmates. CCH will also promote evenhanded treatment, especially when diversionary decisions are to be made.

CCH can contribute to protection of the privacy of individual's records. Individuals having arrest records are entitled to protection from harm that might result from dissemination of inaccurate records or from their unlawful use. Present abuses include the timing and completeness with which records are established, updated, sealed and purged. In some cases, locally maintained records have been used in a manner contrary to law and sound public policy--notably, private agencies have obtained information as part of pre-employment investigations. CCH may reduce these abuses through the exercise of operational controls and audits which are not available to manual systems. For example, CCH can edit records to assure that they are updated within time limits, especially final disposition data. It can automatically generate messages to responsible authorities requesting the submission of such data. It has the potential for automatically erasing arrest information when certain criteria, e.g., the addition of disposition data within certain time periods, are not met. Automated sealing and purging can be done with more certainty and at a much lower cost. Safeguards can be installed (e.g., terminal operator codes) to provide greater protection for records than can be given records stored in file folders.

Negative effects. Individuals who might gain unauthorized access to a terminal would have the opportunity to acquire information about individuals from throughout the United States. Such information could be used for extortion or otherwise to damage the reputation of individuals of record in the system.

Criminal Justice Systems Improvement. Implementation of Standards and Goals<sup>1/</sup> recommendations of NAC will be facilitated by CCH. The effects of CCH are assessed in Appendix C of the Cost and Benefit Study Report as they apply to the following standards:

Use of Citations

Police Standard No. 4.4: Citation

Courts Standard No. 4.2: Citation and Summons in Lieu of Arrest

Corrections Standard No. 4.3: Alternatives to Arrest

Screening and Diversion

Police Standard No. 4.3: Diversion

Courts Standard No. 2.1 and 2.2: Diversion

Corrections Standard No. 3.1: Use of Diversion

Pretrial Release

Police Standard No. 4.4: Release on Own Recognizance

Courts Standard No. 4.5: Presentation Before Judicial Officer Following Arrest

Courts Standard No. 4.6: Pretrial Release

Safety of Persons in Jail

Corrections Standard No. 2.4: Protection Against Personal Abuse

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<sup>1/</sup>National Advisory Commission on Criminal Justice Standards and Goals, Six Reports of the National Advisory Commission on Criminal Justice Standards and Goals (Washington, D.C., Government Printing Office, January, 1973).

## Speedy Trials

- Police Standard No. 4.1: Cooperation and Coordination
- Courts Standard No. 3.1: Abolition of Plea Negotiation
- Courts Standard No. 4.1: Time Frame for Prompt Processing of Criminal Cases
- Courts Standard No. 4.3: Procedure in Misdemeanor Prosecution
- Courts Standard No. 4.8: Preliminary Hearing and Arraignment
- Courts Standard No. 4.9: Pretrial Discovery
- Courts Standard No. 4.10: Pretrial Motions and Discovery
- Courts Standard No. 4.11: Priority Case Scheduling
- Courts Standard No. 4.10: Expediting Criminal Trials

Cost Displacement, or potential savings, to be realized from the automation of manual processes. Potential cost savings of \$130 million over the ten year period from 1975 to 1984 could be realized from replacement of manual functions by automated CCH operations. \$45 million of this amount could be realized by the states and \$85 million at the FBI's Identification Division if the manual update of rap sheets were halted for all subjects automated in the CCH system. However, present practice and informed opinion suggest that parallel operation of manual and automated systems may continue for several years. For this reason the project team elected not to subtract this cost displacement amount from the projected costs shown in Section 3 of this summary. These savings will remain potential until policies are established to reduce parallel operations.

Summary. Congressional enactment of speedy trial legislation, and its implementation over the next 16 months, will have a profound effect on the Federal judicial system. This newly enacted Federal legislation may stimulate enactment of similar statutes in the states. When this happens, current manually operated criminal history systems will not be able to support the millions of decisions which must be made within hours of the time of arrest.

If the criminal justice system is to evolve as NAC recommends and if it is to work effectively within speedy-trial time constraints, then an automated criminal history exchange system will be a necessity. Until that necessity arises, CCH benefits can be summarized as:

- Support for 73 million state and local decisions for the period 1975 to 1984.
- Support of Federal agency operations for national security, criminal justice, employment, and licensing.
- Facilitating the exchange of criminal history information for community protection as well as protection of individual rights, realizing that hazards are introduced for personal security and privacy.
- Support for important criminal justice system improvement as recommended by NAC, and
- Potential cost savings of \$130 million from automation of manual processes.

*added*

#### OBTS Benefits

At the state level, offender-based transaction statistics can provide analytical support for a number of activities. Among these are:

- Allocating limited funds among correctional institutions, state court and prosecution activities, and specialized criminal investigation efforts.
- Planning and managing probation, parole, and correctional programs, particularly when workloads are determined by flows of subjects across jurisdictional lines.
- Coordinating and evaluating special investigative/prosecutorial efforts targeted at narcotics or organized crime.
- Identifying and ameliorating scheduling problems in state trial courts.
- Developing and evaluating legislative initiatives in the fields of penal statutes, specification of permissible sentences, and judicial procedure.

Additional state-level uses have been cited in Project SEARCH Technical Reports 4 and 5.

At the local level, on-line offender-based tracking systems provide a number of capabilities. Among these are:

- Ability to answer status and schedule inquiries from litigants and witnesses.
- Ability to monitor aging of cases.
- Ability to locate pending cases involving police officers no longer available for court appearance.

*modified*

- Ability to identify multiple cases pending against same individual and to use this knowledge in bond recommendations.
- Ability to plan police manpower uses based on knowledge of when officers are needed in court.

In addition, these tracking systems can periodically produce transaction statistics, with additional uses. These include:

- Establishment of priorities in the use of criminal justice resources, with evidence of the impact of one segment's priorities on other segments of the criminal justice system.
- Improved police/prosecution coordination to decrease the incidence of unsuccessful prosecutions caused by procedural difficulties.
- Program evaluation and planning in such areas as prison furloughs, pre-trial diversionary programs, and increased use of citations in lieu of pre-trial detention.

Since either the city police or county sheriff may make an arrest, resulting in adjudication by the county and sentencing to a county or state institution local tracking and statistical capabilities are significantly enhanced by a state-level system recording flows across jurisdictional lines.

Although the above benefits are substantial, it is not clear whether OBTS as currently designed achieves them efficiently. Important questions concerning OBTS as a component of CDS include:

- Whether the cost of delayed CCH implementation caused by linkage to OBTS is outweighed by the improved quality of statistics produced as a by-product of operations.
- Whether the improved quality and standardization of data entered at the state level justifies the expense of duplicating data already entered in local tracking systems.
- Whether the protection of privacy provided by omission of personal identification from state OBTS data is worth more than the resulting limitations on studies of rearrest and recidivism.

Because these and other policy questions concerning OBTS require substantial further study, a full benefit evaluation of OBTS as a component of CDS does not appear in the CDS Cost and Benefit Study Report.



## UCR Benefits

UCR is expected to provide more complete crime and arrest statistics, as the voluntary UCR program becomes state mandated. More comprehensive UCR data will enhance state and local law enforcement planning by providing:

- More reliable statistical data from which the extent and seriousness of the state's, as well as each locality's, crime problems can be determined.
- Specific crime and offender data including the age, sex, and race of arrestees--needed for systems planning; and
- A geographic, as well as a demographic, distribution of offenses that will be of value in establishing program priorities for both planning and resource allocation.

UCR statistics benefit law enforcement tactical operations primarily by facilitating timely and accurate special studies of particular local crime problems. For example, by combining UCR data with certain administrative data, e.g., the size of the work force in a particular crime zone, workloads can be continuously monitored and changed in an attempt to achieve optimum manpower utilization.

Another, and perhaps significant benefit of state-level UCR is that it will force many police agencies to keep records of crimes and other law enforcement events. Many small agencies have never maintained such data completely and accurately, as required by the UCR component. The significance of this improvement should not be underestimated, but dollar-and-cent assessment of it requires rather unrealistic assumptions.

## SAC Benefits

At the present stage of CDS development, Statistical Analysis Center benefits have generally been non-statistical. With rare exceptions, data collection systems have not been operational long enough to produce usable raw material for statistical analysis.

However, in several states the SAC has served as a focal point for expressing user needs to the designers of OBTS/CCH. Its status outside operating criminal justice agencies uniquely qualifies the SAC for this role. Therefore, as more states begin OBTS/CCH development in the future, this use of the SAC can be expected to grow.

## Benefits of MAS and TA/CDS

In the absence of specific requirements for these components, states have used MAS and TA/CDS funds to address a variety of needs specific to their situations. No misuse of these funds were noted in the study states; however, expenditures on these components cannot be described as financing progress toward any single national objective.

## 7. POLICY ISSUES

The costs estimated in this study are significantly higher than those originally projected for CDS. Federal funding, originally planned for CDS development, is now being used to cover initial operations and other costs which some participating states are either unwilling or unable to assume. Many states do not yet perceive the CDS program to be permanent and viable. Consequently, they prefer to utilize Federal funds to the maximum extent possible while withholding a full commitment of state personnel and resources. The net result is a CDS program with a growing need for Federal funds. In the opinion of the project team, survival of the CDS program will require either an increase in Federal funding to more than double the present planned level over the next 10 years or the revision of several high-cost-impact CDS policies to reduce the need for Federal funds.

Several policies were identified as candidates for revision, since they offer potentially large cost reductions with only minor losses in CDS benefits.

These policies are listed in Exhibit 15, together with comments on their contribution to CDS goals, rough assessments of their cost impact, and some suggested alternative policy directions.

The alternatives are briefly discussed below.

1. Participation of all 52 states is anticipated for the CDS program. This desirable objective may not be achieved within 10 years because: (1) lack of program funds may require limitation of state participation to those most able to help themselves, and (2) many less advanced states are unable to meet the administrative requirements for CDS funding in a short time period and may require technical assistance or actual Federal support.

2. Manual criminal history systems will duplicate CCH operations for 10-years or more. With few exceptions, the participating CCH states and the FBI are continuing full manual duplication of their CCH system entries and updates. If this policy continues, by 1984, more than \$18 million per year in potential CCH cost savings will be unrealized.

3. Dedicated computers for CCH must be under the management control of a law enforcement agency. Some states have legislatively restricted the number of computers or computer centers within the state. Current NCIC policy requires that computers for CCH processing, data base management, and message-switching be located under the management control of a law enforcement agency. The conflict between these two policies has prevented CCH-participation by some states.

*Should consider  
a change in  
language*

*minor  
misidentification*

4. Lack of cooperation between law enforcement and judicial agencies in some states limits disposition reporting to OBTS/CCH. In some states, lack of cooperation between law enforcement agencies and the judiciary severely delays OBTS/CCH implementation, increases collection cost, or diminishes the accuracy and completeness of disposition data collected for OBTS/CCH. Potential CDS cost increases, due to this problem, have not been incorporated in the cost projections of this study. No specific solutions are suggested by the study other than a serious need to develop funding policies which would encourage cooperation among affected agencies in all participating states.

5. Delayed fingerprint identification, added processing, and duplicate reporting. Present practice in most states results in submissions of fingerprint cards to both the state fingerprint identification bureau and to the FBI's Identification Division. Duplicate fingerprint submission substantially, and needlessly, raises national fingerprint processing costs. Delay is another critical factor; unless the subject is known to local authorities, the present fingerprint identification process returns positive identification of an arrestee (required as the key for CCH inquiry) in time periods ranging up to two and three weeks. CCH benefits could be materially enhanced by shortening the time for all identifications to hours.

6. Prior manual histories are converted for subjects rearrested after CCH start-up. Compared with "first-offender automation," the present "re-entrant conversion" procedure of converting prior manual histories can more than double the number of clerical personnel needed during the first 10-years of CCH operation. Therefore, this study assumed that first-offender automation must replace the current policy for all except multistate and Federal offenders. The CDS Cost and Benefit Study demonstrated that very little benefit is lost under the less costly policy and that neither policy will retire the manual system within ten years of CCH start-up. (See Exhibits B-5 and B-6 in Appendix B of the CDS Cost and Benefit Study Report.)

7. Multistate offender criminal histories reside in the central NCIC/CCH data base. The present CCH policy of maintaining multistate offender records at NCIC rather than in the state data bases has been based on the joint expectations of lower cost and higher reliability for this approach. The CDS Cost and Benefit study, however, found unexpectedly high cost associated with error correction of entries to this central data base. Furthermore, several states with strict privacy legislation are delaying NCIC/CCH participation because they fear loss of dissemination control over arrest records contributed to a central file.

8. Disposition reporting requirements as not being enforced. This policy facilitates CCH implementation by avoiding judicial/law enforcement controversies. However, future privacy legislation may require

erasure or expunction of arrest records not followed by dispositions within a reasonable time period. In this case, retroactive disposition collection would be virtually impossible, rendering much of the data base unusable. An LEAA funding policy requiring full disposition reporting should be explored and cost-effective disposition collection methods developed. NCIC has an important role to play in encouraging full disposition reporting.

9. OBTS/CCH source document data are collected at the state level. Source data coding and key-entry comprise nearly 60 percent of CCH cost. Several states are collecting disposition source documents for key-entry at the state level even though the same, or similar, data are being key-entered into other state and local systems. Significant opportunities exist to reduce costs and improve accuracy by a funding policy which would encourage non-redundant collection of disposition information through interface between OBTS/CCH and other automated criminal justice information systems.

10. Statistical components are being funded prior to development of a national system design. CCH and UCR systems are guided by a limited amount of technical design documentation prepared by the FBI, but the statistical components, especially MAS and TA/CDS, are directed only by the general guidance given by the CDS Guideline Manual. As a result, the relatively fixed amounts granted to states for these components are utilized in widely diverse ways which do not necessarily support the coherent growth of a national criminal justice statistics capability. Guideline revisions should be considered for more specific direction of these funds.

11. Management control of the CDS program, especially criminal history exchange, is fragmented among:

- . The FBI, including NCIC and the Identification Division, for record maintenance and identification;
- . LEAA, including funding for the CDS, State Judicial Information Systems (SJIS), and Offender-Based State Correctional Information Systems (OBSCIS) programs;
- . State Planning Agencies (SPA's), which distribute block grant funds to state and local agencies;
- . FBI/NCIC for systems management and standards (CCH and UCR); and
- . FBI/NCIC and LEAA for technical assistance.

Since CDS inception, several of these policies have raised expenditures above the level necessary to achieve CDS goals. Until resolved, they will continue to do so. The form of their resolution could raise future CDS costs above the path projected in this report. Substantial future planning, supplemented by analyses of alternatives, will be needed to develop a more cost-effective CDS.

PRESENT POLICIES OR EXPECTATIONS	CONTRIBUTION TO CDS GOAL ACHIEVEMENT	POLICY ALTERNATIVES	COST IMPACT OF POLICY CHANGE
1. Participation of all states is anticipated for the CDS program. However, some states are not ready for participation, and current funding policies may not support participation of all states within the next ten years.	Very high.	1. (a) Delay participation of technically less advanced states. Process data from these states at federal level. (b) Encourage participation of less advanced states by providing technical assistance and modified funding policies.	Moderate
2. Manual criminal history systems will duplicate CCH operations for ten years or more.	Negative	2. (a) Refine CCH system design and provide technical assistance to reduce need for duplicate operations. (b) Modify funding policy to reduce financial support for duplicate operations.	Very high
3. "Dedicated computers" for CCH are required to be under the management control of a law enforcement agency.	Barrier to some states' participation	3. Consider alternative definitions of security assurance.	Low
4. Lack of cooperation between law enforcement and judiciary in some states limits disposition reporting to OBTS/CCH.	Negative	4. Consider funding policies which would encourage cooperation in those states.	Unknown
5. Delayed fingerprint identification response encourages multiple submissions, added processing, and duplicate reporting	Negative	5. High technology, rapid response identification systems would enhance CCH benefits. Encourage a uniform single fingerprint submission policy, and technical assistance by the FBI to the states.	Very high

EXHIBIT 15: SUMMARY OF COST-RELATED CDS POLICY ISSUES

CT

should consider this

PRESENT POLICIES OR EXPECTATIONS	CONTRIBUTION TO CDS GOAL ACHIEVEMENT	POLICY ALTERNATIVES	COST IMPACT OF POLICY CHANGE
6. Manual histories are converted for subjects rearrested after CCH startup (re-entrant conversion policy)	Very low	6. Automate only those subjects whose first arrest occurs after CCH startup (first-offender automation policy)	Very high
7. Multistate offender criminal histories reside in the central NCIC/CCH data base	Access to multi-state information is essential to CCH	7. Maintain an index to both single and multistate offenders, with records in state data bases.	High
8. Dispositions are not required for CCH arrest records as a condition for funding	.Higher speed of CCH implementation .System may violate future privacy legislation	8. (a) Full disposition reporting in NCIC/CCH format (b) Full reporting of dispositions linked to arrest charges.	Lower cost than full disposition reporting
9. OBTS/CCH source document data are entered at state level	Less with each succeeding year (as local criminal justice systems are implemented).	9. Collect OBTS/CCH dispositions through interface with other automated systems	High
10. Statistical components are being funded prior to development of a national system design. MAS and TA/CDS components are undefined but account for 6% of CDS cost over ten years.	Negative	10. Develop specific guidelines for implementing statistical components. Consider diverting MAS and TA/CDS funds to other components until their roles are defined.	Moderate
11. Management control of the criminal history exchange program is fragmented: .FBI/NCIC and FBI/Ident.: federal-level data storage .LEAA: funding for CDS, SJIS, OBSCIS .SPA'S: state and local block grants .FBI/NCIC: systems management and standards .FBI/NCIC and LEAA: technical assistance	Negative	11. 1971 OMB recommendation for coordination of interstate criminal history exchange program at the level of the Attorney General	High

EXHIBIT 15: SUMMARY OF COST-RELATED CDS POLICY ISSUES (CONT.)

April 24, 1975

REC-256 2-115930-9

Administrator  
Law Enforcement Assistance Administration  
U.S. Department of Justice  
Washington, D. C. 20530

Dear [redacted]

Reference is made to your memorandum dated April 15, 1975, captioned "Interim CDS Policy Change," which advised of a proposed policy change affecting the funding of Computerized Criminal History (CCH) record conversion.

As you are aware, the concept of NCIC has, from its inception, been to serve as a national index and network for fifty state law enforcement information systems. The NCIC system places complete responsibility on state control terminal agencies for CCH file record entries relating to state or local offenses. The state agencies have been encouraged to develop their own criteria for selecting histories for conversion and entry into the CCH file, since the individual states are in the best position to evaluate their unique requirements.

In consideration of the NCIC concept of sharing management responsibility with the states, it would be inappropriate for the FBI to unilaterally comment on the modification in funding which you propose. Rather, we would recommend that the views of the NCIC state control terminal agencies and the NCIC Advisory Policy Board be obtained prior to adopting the significant policy change outlined in referenced memorandum.

Sincerely yours, [Signature]

C. M. Kelley

Clarence M. Kelley  
Director

1 - [redacted]  
1 - [redacted]

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Note: [redacted] is the Administrator of the Law Enforcement Assistance Administration and is on the Bureau's mailing list.

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UNITED STATES GOVERNMENT

## Memorandum

DEPARTMENT OF JUSTICE  
LAW ENFORCEMENT ASSISTANCE ADMINISTRATIONTO : Mr. Clarence M. Kelley  
Director, FBI

DATE: 15 APR 1975

FROM :   
Administrator, LEAASUBJECT: ~~Interim~~ CDS, Policy Change

As you know, the ~~Comprehensive Data System~~ (CDS) Cost and Benefits Study, prepared by the ~~Institute for Law and Social Research~~, indicates that there are significantly higher costs involved in the CDS program development and operation than were originally projected. There are many reasons for these higher costs and, it is believed, some costs may be greater than necessary to achieve the anticipated CDS benefits.

Several CDS policies were identified and discussed in the study which offer potentially large cost reductions. Among the policy issues identified is the ~~Offender Based Transaction Statistics/Computerized Criminal History~~ (OBTTS/CCH) record conversion policy. It is estimated that this policy of converting manual histories of "re-entrants" (persons arrested after CCH start-up who have been previously arrested) can, for example, more than double the number of clerical personnel needed during the first 10 years of operation with resulting high initial and continuing costs. Additionally, current FY 75 funding limitations and those which can reasonably be anticipated over the next several years, require expeditious action to reduce CDS cost while attempting to meet major program objectives.

Toward this goal, it is planned to forward the attached memorandum to all LEAA Regional Offices for immediate implementation. If you have any comments or question, please contact us as soon as possible.

It is also planned to conduct further examination of the CDS program over the next several months in an attempt to identify and adjust other high cost policy issues and to develop a CDS funding plan to most effectively allocate limited funds to grantees. It is anticipated that there will be several CDS policy and guideline changes resulting from this review which will be forwarded for your review as soon as they are developed.

Attachment 

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ENCLOSURE

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REC-25

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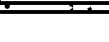

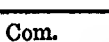
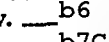
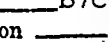
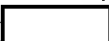

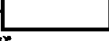
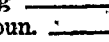
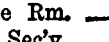
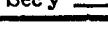



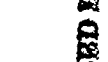
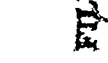
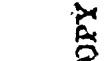
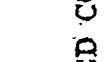
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UNITED STATES GOVERNMENT

DEPARTMENT OF JUSTICE

LAW ENFORCEMENT ASSISTANCE ADMINISTRATION

*Memorandum*

TO : All Regional Offices  
THRU : [redacted] Acting Assistant Administrator, ORO  
[redacted]  
Acting Deputy Assistant Administrator, NCJISS  
FROM : [redacted]  
Acting Director, SDD

DATE: April 7, 1975

b6  
b7cSUBJECT: Special Condition on new OBTS/CCH applications

Effective immediately, the following special condition will be included with all grant awards for OBTS/CCH under CDS, unless covered in exceptions:

"No part of project funds, including matching funds, may be used for assembling and converting prior criminal histories - that is, arrests and events prior to OBTS/CCH start up."

Exception from the above restrictions will be made for states that have made substantial progress towards establishing OBTS/CCH files under the guidelines of April 1, 1974, or earlier. These states are, to our knowledge, Massachusetts, New Jersey, Michigan, Minnesota, Ohio, Arkansas, Louisiana, Arizona and California.

If any other state in your region qualifies for the "substantial progress" exceptions, please let us know, with specific data on total number of records to be converted, number converted to date and conversion costs per record.

Assuming implementation of the NCIC/CCH single state, multi-state concept, project funds may be used for multi-state conversion.

Other exceptions may be considered. Requests for exceptions should include criteria for specific type of records to be converted, estimated number of such records and estimated conversion costs per record.

Revised guidelines to be issued within 60 days will limit automation of arrests and processing occurring after CCH "start up". This is defined as the date by which arrest reports and other input forms, designed to link all records on an offense and to facilitate automation, are in standard use.

62-1159309  
ENCLOSURE

# Fear Stalks Witnesses to Crime in D.C.

By Winston Groom

Washington Star Staff Writer

Nearly a third of the witnesses to crime in the District are afraid to testify in court for fear of reprisals by suspects, according to a major new study.

The report also charges that communication gaps and bureaucratic mismanagement on the part of prosecutors and police are the principal causes of witness non-cooperation — the single largest factor in cases being dropped or dismissed in D.C.

The study shows that many witnesses, whom prosecutors simply write off as "uncooperative" actually are willing to cooperate but are not brought into the courtroom to testify because of red tape.

FOR INSTANCE, the study says, a large number of witnesses are not even contacted to testify because police and prosecutors have wrong addresses and telephone numbers.

According to the study made by the Institute for Law and Social Research under a grant from the Justice Department's Law Enforcement Assistance Administration, 28 percent of the witnesses interviewed complained of inadequate protection procedures.

A summary of highlights of the study was obtained by The Star this week. The full study is scheduled for release to the public later this month.

The study, which took two years to complete, shows that 43 percent of the witnesses complained that no one explained to them the major steps of the court process, thereby confusing them as to their role in the system.

ONE WITNESS, for instance, was instructed by police to go to "the prosecutor's office." When he arrived, the witness discovered "several rooms fitting that description" and because he was unable to find the prosecutor, the witness was labeled "uncooperative."

Asst. Dir.:  
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The New York Times \_\_\_\_\_  
The Wall Street Journal \_\_\_\_\_  
The National Observer \_\_\_\_\_  
The Los Angeles Times \_\_\_\_\_

Date JUL 15 1975

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A principal conclusion of the study is that communications difficulties between police/prosecutor and witnesses prevented prosecutors from ascertaining the true intentions of many witnesses," the summary says.

The study also says that police were observed asking witnesses to reveal their identity within hearing of suspects.

"Chances are," the study says, "that some potentially cooperative witnesses, fearing reprisal, changed their minds about revealing their true names and addresses."

In fact, the study says, "the recommendation offered by more witnesses than any other — 28 percent — related to procedures for improved witness protection."

AMONG the findings of the study are:

- The greater the number

of witnesses to a crime, the less likelihood there is the case will be dropped for lack of cooperation. The study suggests that when there are several witnesses, they tend to reinforce each other's cooperative tendencies and "shore up one another's resolve."

- The closer the relationship between the witness and the defendant, the greater the likelihood of a case being dropped because of non-cooperation. "The implications are that witnesses are more inclined to persevere in the prosecution of strangers than of friends, relatives or other acquaintances. The witness may develop a 'forgive-and-forget' or 'fear-of-reprisal' attitude."

- Police at the scene of a crime often fail to check witnesses' oral information or their names and addresses against the witnesses' identification. This apparently is the major cause of the inability of prosecutors to locate 23 percent of all witnesses when they need them to testify.

- Prosecutors often fail to contact witnesses properly to arrange appearance at trial. The prosecutor's office, the study says, simply leaves a message which is not passed on to the witness.

December 22, 1977

OUTSIDE SOURCE

Institute for Law and Social Research  
Suite 625

1125 15th Street, N. W.  
Washington, D. C. 20005

Dear [redacted]

I am most appreciative for your autographed copy of "What Happens After Arrest?" which [redacted] passed to me. You can be assured that it was I who was honored by the opportunity to furnish the Foreword to your very fine work.

You have my best wishes for a joyous Holiday Season.

Sincerely,

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REC-55

Kelley

Clarence

Clarence M. Kelley  
Director

11 JAN 3 1978

EX-132

Encl maintained  
in D.C.

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MAIL ROOM ☐

TELETYPE UNIT ☐

FROM

OFFICE OF DIRECTOR, FEDERAL BUREAU OF INVESTIGATION

TO

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See Me \_\_\_\_\_ ( )

Note and return \_\_\_\_\_ ( )

Prepare reply and return for my signature \_\_\_\_\_ ( )

Prepare reply over my signature and send \_\_\_\_\_ ( )

Respond over your signature \_\_\_\_\_ ( )

Prepare memo for the Department \_\_\_\_\_ ( )

For your recommendation \_\_\_\_\_ ( )

What are the facts? \_\_\_\_\_ ( )

Hold \_\_\_\_\_ ( )

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INSLAW  
Institute for Law and Social Research

1125 15th St., N.W. Suite 625 Washington, D.C. 20005  
(202) 872-9380 Cable INSLAW, WASHDC

[Redacted] President

January 3, 1979

Assoc. Dir. \_\_\_\_\_  
Dep. AD Ad \_\_\_\_\_  
Dep. AD In \_\_\_\_\_  
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Telephone Rm. \_\_\_\_\_  
Director's Sec'y \_\_\_\_\_

The Honorable William H. Webster  
Director  
Federal Bureau of Investigation  
10th & Pennsylvania Avenue, N.W.  
Washington, DC 20535

OUTSIDE SOURCES

Dear Mr. Webster:

In the last session of Congress, the United States Senate, as part of its work to revise the Federal Criminal Code (Senate Bill S. 1734), called for the establishment of a United States Sentencing Commission. Although the bill died in Committee, Senator Edward M. Kennedy, Chairman of the Senate Judiciary Committee, has said the bill will receive highest priority in the next session.

The purposes of the Sentencing Commission, as described in the bill, include the establishment of sentencing policies and guideline for the federal criminal justice system. The policy formulations will be grounded in the general goals of sentencing--such as crime control (including general deterrence, special deterrence/recidivism, and incapacitation).

The bill mandates that the policies reflect advancements in research. To support the purposes of the Sentencing Commission, the Department of Justice has funded a study to collect and organize relevant case data and survey information and to integrate the findings into alternative sentencing policy formulations.

To that end, the Department of Justice has entered into a contract with the Institute for Law and Social Research (INSLAW) to provide background research required in the formulation of federal sentencing guidelines. In order to provide the Department of Justice with the needed analysis, we seek permission to use data from the FBI's Computerized Criminal History (CCH) files. An important part of the project is a special study on the prior criminal histories of federal offenders. For purposes of this analysis, we will need information on approximately 10,000 randomly selected federal arrestees for the year 1976 together with their prior criminal histories.

We have had a preliminary meeting with [Redacted] Assistant Chief of the NCIC Section and his staff. [Redacted] indicated to us that, other than data processing constraints, obtaining CCH files without

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The Honorable William H. Webster  
Page 2

January 3, 1979

Identifiers should pose no problem. Accordingly, we request a CCH data tape of 1976 arrestees together with their criminal histories, without identifiers but with a uniquely assigned number to differentiate one arrestee (and his record) from all others.

Once we have the data tape, we plan to do two types of analysis. First, we plan to estimate the parameters of the arrest population in terms of total numbers of arrests, arrestees, crime types and arresting agencies. After the preliminary analysis has been completed, a random sample of arrestees will be drawn from the file and their criminal careers analyzed. We will try to determine characteristics of criminal careers such as length, frequency of offense activity, and differences among offender types.

As discussed with [redacted] we are willing to underwrite the cost of transferring the information to our computer system and would be happy to work with the FBI in any way to lessen resource requirements that this request might impose. The Justice Department contract extends for 18 months; we have already reached month number six. If at all possible, we would like to begin work on the tapes within one or two months.

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For your information, we are making a second request, in a separate letter, for CCH data on a selected sample of federal offenders with identifiers. To expedite consideration of the first of these two requests, separate letters have been prepared.

Enclosed is an overview of the project. We would be happy to supply you with any additional information that you may require. We would also be happy to work with your staff in specifying the details of this request. Please feel free to contact us if you have any questions.

Sincerely,

[redacted]

President

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[redacted]  
Enclosure

12/1/78

SENTENCING AND SOCIAL SCIENCE:  
RESEARCH FOR THE FORMULATION OF FEDERAL SENTENCING GUIDELINES

I. Introduction

Surely, one of the distinctive characteristics of public policy in recent years is that it is shaped out of a process that incorporates considerably more social science evidence than has characterized earlier times. Whereas Presidents once formulated economic policy on the basis of advice from Wall Street, they have more recently been inclined to turn to Harvard or the Brookings Institution. Similarly, national commissions that have addressed policy issues in virtually every major sphere of public concern in the past decade have, in most instances, drawn heavily from scholarly

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research findings.

Evidence from the social sciences in the shaping of public policy has been used no less extensively in the courts.

Beginning with Louis Brandeis' use of empirical evidence in the

Supreme Court to demonstrate that the 10-hour workday was

detrimental both to the health of the community and its

economic well-being,<sup>1</sup> the courts have heard persuasive

evidence assembled by social scientists in topics as disparate

as school desegregation<sup>2</sup> and the 6-person jury.<sup>3</sup> While the

empirical evidence that has been brought forth to support

the judicial process has at times been found not to withstand

scholarly scrutiny<sup>4</sup>, the use of social science in court is,

clearly, on the rise.<sup>5</sup> According to one observer, "even though the use of social research in the courts has intensified, particularly in the past decade, sociolegal cooperation is nowhere near the realization of its full potential."<sup>6</sup>

One prominent area of the law in which scientific evidence has been specifically called for is that of sentencing. In his book Criminal Sentences: Law Without Order, Judge Marvin Frankel observed: "We have in our country virtually no legislative declarations of the principles justifying criminal sanctions."<sup>7</sup> He went on to propose that lawmakers enact "an effective program of research" to provide a basis for federal laws and rules pertaining to sentences, corrections, and parole.<sup>8</sup>

Frankel's proposal did not fall on deaf ears. In early 1978, the Senate enacted S. 1437, the Criminal Code Reform Act of 1978.<sup>9</sup> This act called for a United States Sentencing Commission to "establish sentencing policies and practices for the federal criminal justice system that . . . reflect, to the extent practicable, advancement in knowledge of human behavior as it relates to the criminal justice process."<sup>10</sup> The act further called for a research program that would "collect systematically the data obtained from studies, research, and the empirical experience of public and private agencies concerning the sentencing process."<sup>11</sup>

The House of Representatives did not enact legislation

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dealing with sentencing reform. It is, nevertheless, difficult  
to imagine that anyone could seriously object to the notion  
that sentencing policy can be enhanced by systematic assessment  
of sentencing goals and empirical analysis of data that relate  
to those goals.

Out of support for this notion in general, and in view of  
the prospect of eventual legislation requiring research on  
sentencing policies in particular, the Federal Justice Research  
Program of the Department of Justice has contracted with the  
Institute for Law and Social Research to conduct research in  
support of the formulation of federal sentencing guidelines. 13

The remainder of this article describes that research program

and its scientific precedents. Section II reviews relevant  
previous research on sentencing. Section III sets forth the  
basic elements of the research design for the project.

Section IV addresses the prospects for the continued evaluation  
and enhancement of sentencing policy.

## II. Previous Research on Sentencing

As a topic for research, sentencing is both interesting and treacherous. It is interesting because it represents the culmination of the judicial process, the point at which society has an opportunity to learn what sanction shall actually be selected to correspond to a particular criminal situation; hence it is a reference point around which all other criminal justice research logically revolves. It is treacherous because it is laden with the most difficult of moral issues, which do not make for good research; moreover, because the data on sentencing have not been of the high quality that scientists are typically accustomed to analyzing,

sentencing has not lent itself readily to scrutiny. As a result, one can find considerably more scientific attention devoted to white mice and rhesus monkeys than to sentencing.

There is, nonetheless, a fairly substantial body of literature describing empirical research on sentencing.

A. Evenhandedness

A basic area of research on sentencing that has obvious relevance to this project pertains to the issue of evenhandedness. We have not found an authority who disagrees with evenhandedness as a goal of sentencing. While support for the objective of maintaining individualized judicial discretion appears clearly to conflict with achievement of the goal of evenhandedness, proponents of judicial discretion do not argue against

evenhandedness, per se.

The available evidence does, indeed, suggest a conflict between individualized justice and the goal of evenhandedness.

Because no two cases are identical in every respect, one cannot prove deductively that the observed variation in sentences is

unjust.<sup>14</sup> Some lack of evenhandedness is, nonetheless, infer-

able from available data. Systematic differences in sentencing

patterns between judges have been indicated in studies by Zeisel

and Diamond,<sup>15</sup> Dungworth,<sup>16</sup> Partridge and Eldridge,<sup>17</sup> Gaudet,<sup>18</sup>

Hogarth,<sup>19</sup> Remington and Newman,<sup>20</sup> Zumwalt,<sup>21</sup> and others. Other

evidence, of a more anecdotal nature, is further suggestive of

such differences.<sup>22</sup> Differences are, of course, likely to be



attributable also to prosecutors, defense counsel, probation officials, and others who influence the sentencing process. 23

B. Offender Behavior: Recidivism

A substantially larger area of empirical research on sentencing deals with the effects of alternative criminal sanctions on offender behavior. The most common type of such research consists of estimates of the average effect of a particular sanction or treatment on rates of offender recidivism. Under the theory of special deterrence, an offender will be discouraged from committing a crime after experiencing the hardship of punishment; thus, recidivism will decline. Under the theory of rehabilitation, an offender receives a

correctional treatment that provides specific occupational skills, moral uplift, or other stimulant to improved behavior; thus, recidivism will decline.

Unfortunately, neither the theory of special deterrence nor that of rehabilitation has received any convincing empirical validation. In fact, study after study has revealed little or no benefit, in terms of reduced recidivism, from any particular correctional strategy when applied to a general population of offenders. Walter Bailey reviewed 100 empirical studies that evaluated correctional treatments and concluded: "Therefore, it seems quite clear that, on the basis of this sample of outcome reports with all of its limitations, evidence supporting the efficacy of

correctional treatment is slight, inconsistent, and of  
questionable reliability . . . (A)lthough the operational  
means and resources of correctional outcome research have  
substantially improved, there has been no apparent progress  
in the actual demonstration of the validity of various types  
of correctional treatment."<sup>24</sup> Later, Robert Martinson

reviewed scores of more recent studies of rehabilitation  
and, like Bailey, found no empirical support of the theory  
of rehabilitation.<sup>25</sup> It appears, then, that while some

acceptable type of treatment of offenders may have been  
devised that works, it has not yet clearly revealed itself.<sup>26-</sup>

These findings are especially germane to the question of sentencing guidelines, since the guidelines approach has grown largely out of a heightened sense of dissatisfaction with the system of indeterminant sentencing and the concomitant failure to realize the goal of rehabilitation.

According to Judge Frankel, "justifying an indeterminant sentence in any particular case . . . would consist of identified needs and resources for effective rehabilitation."<sup>27</sup>

As belief in rehabilitation as a realistic goal of sentencing has declined, so has support for the indeterminant sentence.

According to one prominent spokesman: "The era of the indeterminant sentence . . . is quickly drawing to a close."<sup>28</sup>

C. Offender Behavior: Deterrence

Another theoretically important manner in which criminal sanctions may influence behavior is general deterrence, or simply "deterrence." That the government actually may impose a particular sanction on a person who is caught violating a particular law is widely understood to discourage people from committing that offense.<sup>29</sup> Thus deterrence is based on the fundamental proposition that human behavior is influenced by incentives. The empirical question about deterrence that is of central relevance to sentencing policy is this: To what extent does a particular sanction (such as one year of incarceration) discourage people from violating a particular

law, relative to an alternative sanction (such as probation)?

Social scientists had been unable to seriously address this question until the 1950s, when both criminal justice data and computational capabilities began to improve rapidly.<sup>30</sup> By

the mid 1970s it became possible to review scores of major empirical studies of deterrence.<sup>31</sup>

The principal method used in the empirical research on deterrence has been to measure the statistical association between crime rates and sanction levels, based on fluctuations in both.

Under the theory of deterrence, when the sanction becomes more severe, the crime rate should decline, holding all other factors constant. In fact, the vast majority of the studies that have

been documented within the past 15 years have reported finding  
a deterrent effect. Variations in both the certainty and  
severity of sanction levels from jurisdiction to jurisdiction<sup>32</sup>

and over successive time periods<sup>33</sup> have repeatedly been found  
to be negatively correlated with the crime rate fluctuations  
from place to place and from time to time. These correlations  
have been interpreted as support for the recommendation that

the sanctions be made more certain and more severe.<sup>34</sup>

The estimates of deterrence are, of course, not without  
their limitations. In the first place, they do not really  
isolate the effect of general deterrence from the effects of  
recidivism and incapacitation;<sup>35</sup> rather, they aggregate all

behavioral mechanisms into a single correlation measure. Thus, while general deterrence may be the predominant factor beneath these findings, it is really misleading to refer to the findings reported in these studies as estimates of the "deterrence" effect.<sup>36</sup>

Secondly, and more important, a negative correlation between crime rates and sanction levels does not necessarily imply that the application of a more certain or more severe punishment leads to a reduction in crime. It may imply to no less an extent that large increases in the crime rate tend to weaken the ability of law enforcement institutions to apply sanctions, so that as crime expands the probability of capture and



conviction declines<sup>37</sup> and the average term of incarceration grows  
shorter.<sup>38</sup> Or this correlation may be the result of errors in the  
measurement of crime.<sup>39</sup>

In short, we may really know very little more about the  
deterrent effect of punishment than we did prior to the rapid  
advancements in our ability to measure statistical associations  
in criminal justice data.<sup>40</sup>

D. Offender Behavior: Incapacitation

Even if deterrence and rehabilitation had no empirical  
support, it might be appropriate to incarcerate certain  
offenders to prevent them from inflicting further harm on  
society for some period immediately following their conviction.

This "incapacitative" effect of punishment on crime may, indeed, be greater than that of deterrence for many categories of offense or offender.<sup>41</sup>

The relevance of the incapacitation issue to sentencing policy revolves around the following question: How much crime do we prevent a particular class of convicted offender from committing by incarcerating him for one year? two years? five years? To address this question, it is necessary to learn about the crimes that are committed by each class of offender while he is not incarcerated. Such estimates are possible, but difficult.

One estimation procedure is based on "self-reporting"--interview offenders in such a way as to obtain candid responses about the

number and nature of crimes committed.<sup>42</sup> Another is based on aggregated data--take estimates of the number of offenses per unit of time (such as a year), together with estimates of the number of offenders not incarcerated during that time, and calculate the ratio of offenses per offender "on the street" per unit

of time.<sup>43</sup> Yet another is to use rearrest or reconviction data as a basis for estimating known recidivism for each class of offender, then adjusting those estimates based on self-report statistics and estimates based on aggregated data.

Problems in making these estimates are substantial.

Offenders may rarely give candid responses in interviews, and even when candor is present, memories may falter; data on the

total number of reported offenses are likely to seriously understate the true extent of crime, especially for such offenses as embezzlement, smuggling, narcotics, and illegal immigration; estimates of the number of offenders will suffer in those categories in which some offenders are not caught or even discovered; and it is not obvious, in any case, how one should define the offender population. Moreover, the incapacitation logic ignores crimes committed while in prison.

Other problems associated with incapacitation remain even in the absence of these difficulties in estimating the magnitudes of the incapacitation effect. For example, increasing prison time for some classes of offenders to achieve incapacitative benefits may produce unanticipated increases in recidivism.

And the logic of incapacitation can be easily misapplied in practice--authorities may invoke unnecessarily severe sanctions against older offenders who are relatively inactive, but who, primarily by virtue of their age, have longer criminal histories than younger, more criminally active offenders.<sup>45</sup> Furthermore, even if "properly" applied, incarcerating one convicted offender for a longer period because he is in a "class" of relatively active offenders may be a violation of his legitimate rights, particularly when he happens to be an exception.<sup>46</sup>

Largely as a result of the technical problems cited above, the estimates of incapacitative effects vary widely.<sup>47</sup> Of course, against this backdrop of divergent estimates and other difficulties, it must be noted that this area of empirical research is

yet in its infancy. It appears likely that the estimates of incapacitation will improve substantially over the coming years.

Improvements in these estimates, as well as those pertaining to deterrence, rehabilitation, and other issues of obvious relevance to sentencing, can only enhance their utility to the process of setting sentencing policy.

### III. A Design for Organizing the Relevant Data

The present study is designed to draw from and carry forward previous research by organizing federal data for the period 1970 through 1978 and surveying selected populations. The primary purpose of the study is to provide the information needed to create explicit sentencing policy in general and guidelines in particular, at a minimum of disruption to the institutions that must implement and live with these policies.

The study plan consists of three major components and several subordinate tasks.<sup>48</sup> The first major component is the analysis of sentence severity. This phase of the study consists of an examination of a large number of individual sentencing decisions for a recent period, with a focus on selected crime categories,

to provide a basis for producing prototype guidelines. This analysis is designed to identify those factors documented in the presentence investigation report that are systematically related to the harshness of the sentence handed down. We plan also to examine differences between the sentence and the amount of time actually served.

The analysis of these data will provide one important basis for guidelines--actual sentencing and time served norms. They will also provide a basis for understanding the sources of variation in federal sentencing and parole patterns; hence, this information can be useful for estimating the reduction in variation associated with alternative guidelines approaches.

The second major facet of the project consists of an analysis of the effects of sentencing decisions on crime control and



individual behavior. This phase focuses on selected goals of sentencing, including special deterrence, rehabilitation, and incapacitation. Whereas the federal data are being organized around a large number of individual sentencing decisions to analyze the determinants of the sentence, the data will be organized around a large number of individual convicted defendants for this second major component of the project. A principal aspect of the analysis of defendants consists of an assessment of the effects of different sanctions (e.g., probation versus short-term incarceration, short-term versus long-term incarceration) on the frequency and seriousness of subsequent criminal involvement. This analysis of special deterrence will be carried out using statistical techniques that "control" for the effects of other factors that may affect recidivism.

The third major part of the project, being executed by a research team from the firm of Yankelovich, Skelly, and White, Inc., consists of surveys of judges, offenders, defense counsel, prosecutors, probation and parole officials, and the general public. While some questions are to be asked of all these populations--for example, questions about the fundamental goals of sentencing--each special population will be asked a unique set of questions. Judges will be asked questions, for example, designed to establish the most important determinants of sentence severity and to elicit responses about the appropriateness of certain factors (such as the existence of a plea rather than a guilty verdict in trial, prior arrest information, and the sex of the defendant) as sentence determinants. Offenders will be asked questions designed to

provide a basis for estimating the amount of crime that is pre-

vented by way of "incapacitating" various classes of convicted

50  
defendants. The general public will be asked questions about

their willingness to pay to reduce crime. Prosecutors will be

asked questions designed to provide insights about the plea bar-

gaining process. Each population will, in short, be asked a range

of questions designed to permit inferences about the acceptability

of alternative sentencing policies, given the unique point of view

of that population.

The project is designed also to address such issues as the  
effects of alternative sentencing guideline policies on prison

51  
populations, law enforcement practices, and court resources and  
procedures (such as plea bargaining). It will formulate alterna-  
tive procedures for translating perceived goals of sentencing

and estimates drawn from federal data into sentencing guidelines, as we describe below. It will analyze alternatives to incarceration--fines, probation, and restitution. It will also analyze available data describing trends in sentencing practices over time by major offense category, to provide a basis for recommendations about a mechanism for periodic review of sentencing guidelines.

It is surely in order at this point to ask: Why do we wish to make estimates of the effects of sentences on crime? of the public's willingness to pay to reduce crime? of the factors that currently determine the sentence that will be meted out? And, assuming that we had such estimates, how do we piece them together in a coherent fashion to produce sentence guidelines?

To be sure, the literature on the logic of criminal sanctions does not set forth a tidy path to the determination of the "right" sentence for a particular criminal situation. Mill<sup>52</sup>

and Bentham<sup>53</sup> suggest a utilitarian framework for determining

sentences; Hart<sup>54</sup> and Rawls<sup>55</sup> emphasize fairness and equity;

Packer<sup>56</sup> recommends a balance between due process and crime

control considerations; von Hirsch<sup>57</sup> argues in favor of a

return to the tailoring of a "justly deserved" punishment to

fit the offense; and Gottfredson, et al.,<sup>58</sup> recommend that sen-

tencing reform begin by modeling current sentencing practices.

It is possible, in spite of these differing philosophies, to create a structure that integrates the components of this research program toward a coherent formulation of sentencing

guidelines. It would, of course, be extremely difficult to carry out this research without such a framework. It is, moreover, useful to have a context for the analysis that provides a specific rationale for the inclusion of each component; thus, a set of organizing principles can provide a means to assess the importance of each part of the project to the eventual development of guidelines.

We take the pathbreaking methodology of Gottfredson and Wilkins as our starting point for this framework. The Wilkins-Gottfredson model has several features that make it extremely attractive: (1) it is based on actual sentencing decisions, hence it recognizes the expertise of the judiciary in the formulation of guidelines; (2) it minimizes disruption to

prisons and other criminal justice agencies by reducing variation around existing norms in sentencing; (3) it structures these norms in terms of two well-established sets of sentence determinants--characteristics of the offense and the defendant's observed criminal propensity; (4) it is methodologically straightforward, and it is easy for persons without training in statistics to use the output; and, perhaps most importantly, (5) it presents a clear picture to judges of their decisions and thereby provides a means for them to review, assess, and modify sentencing policy as they see fit.

Accordingly, we begin by establishing a statistical relationship between the sentence on the one hand and the factors that represent crime seriousness and the defendant's empirically

derived recidivism proneness on the other. This relationship is depicted hypothetically in Figure 1. The line AB represents the locus of average sentences, given the relevant facts that pertain to both offenses and offenders.<sup>59</sup> The hyperboloid around the line represents an arbitrary bound beyond which a sentence might warrant special justification by the judge.

Next, we provide a basis for an orderly shifting of the line AB and the accompanying hyperboloid.<sup>60</sup> We begin with the utilitarian logic, recognizing both the existence of other sentencing philosophies and the possible existence of legal constraints.<sup>60a</sup> Following the standard utilitarian calculus,<sup>61</sup>

we wish to find the sentence for each category of offense (and offender) that minimizes the total social cost of crime and



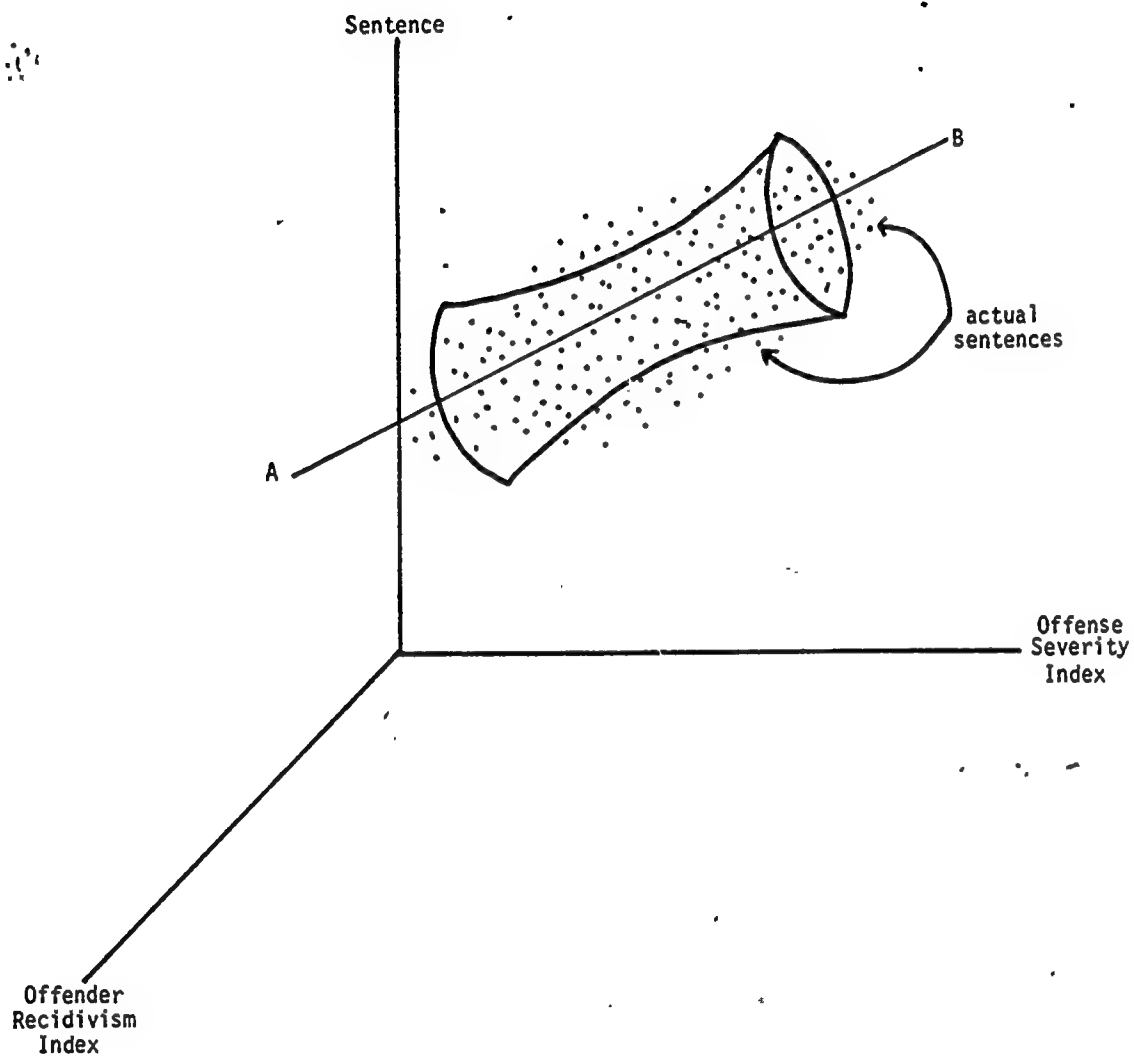


Figure 1. Construction of guidelines based on existing sentencing norms.

crime control associated with that category, where the total social cost of category i ("i" represents any particular category) consists of both public and private costs. A schematic of this model is depicted in Figure 2. According to the utilitarian logic, an increase in the sentence will produce an increase in prison costs (other factors, such as the conviction rate, held constant); an increase in the sentence will also produce a decrease in the number of crimes, by way of deterrence and incapacitation, thereby reducing both the costs associated with crime control (in terms of fewer imprisonments and fewer criminal cases for the police and courts) and the costs of crime incurred in the private sector. <sup>62</sup>

Thus, the utilitarian model provides an explicit framework for integrating the crime control effects of sentencing, the costs of controlling crime, and the privately incurred costs of

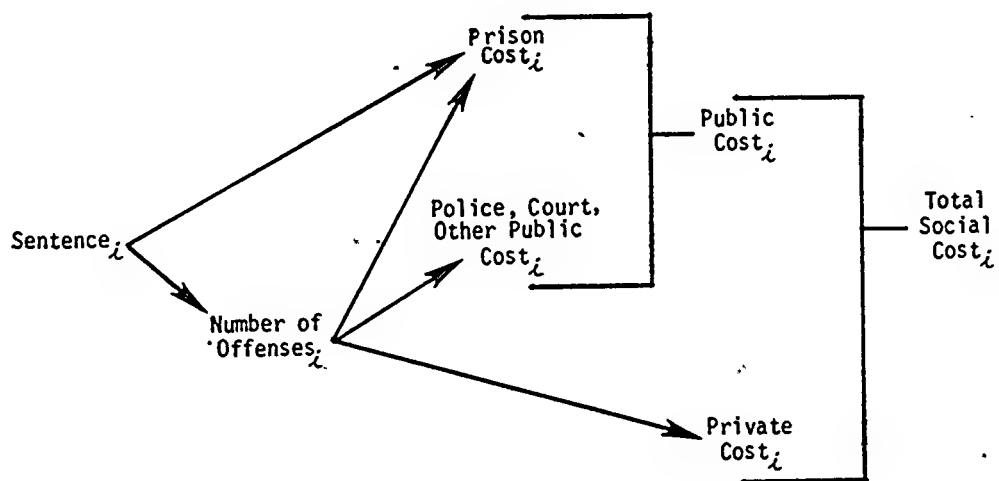


Figure 2. Utilitarian Model

crime (including property loss, injury, cost of fear, and private expenditures for alarm systems, locks, guards, and other security devices).<sup>63</sup> If we had estimates of each of these effects and

costs, we could calculate an estimate of the socially optimal sentence under the utilitarian logic. This model also provides a basis for assessing the social value of refinements in the

<sup>64</sup>  
estimates themselves.

Suppose, for example, that the current norm for category i is a ten-year sentence and five years of actual imprisonment, based on an analysis of recent data. Suppose further that a utilitarian calculus suggests a sentence of two years. We presume that a sentencing commission would find such information

useful in setting guidelines, and might elect a phasing down of the guidelines for that category.

This is not to suggest that we can realistically expect to produce precise estimates of sentences that maximize social utility. One central component of the utilitarian calculus is the effect of the sentence on the crime level, and such estimates have been notoriously disparate in spite of improvements in the data and in the technology of statistical estimation.<sup>65</sup> The utilitarian model does, nonetheless, provide a relatively tight framework that can accommodate estimates that are less than tight. Its main virtues lie in its serving as a solidly grounded basis for organizing the research, as an explicit goal toward which we can refine our estimates, and as a vehicle for assessing the

importance of individual parts of the project.

The utilitarian model has, however, been criticized by von Hirsch, who argues that the evidence to support the model is inadequate<sup>66</sup>, that the model is too easily misused (as exemplified by misuses of indeterminate sentencing under the goal of rehabilitation)<sup>67</sup>, and that it is deficient on moral grounds.<sup>68</sup>

Von Hirsch calls instead for a return to Kant's principle of pure legal justice<sup>69</sup>, which von Hirsch refers to as "just deserts."<sup>70</sup> He argues, specifically, in favor of sentences the severity of which is directly proportional to the seriousness of the defendant's crime or crimes.<sup>71</sup>

The specific mechanics of the linkage from crime seriousness to sentence severity are, however, less than clear.

While crime seriousness scaling has evolved as a widely accepted practice<sup>72</sup>, the scaling of sentence severity<sup>73</sup> and the notion of proportionality appear somewhat difficult to operationalize.<sup>74</sup>

And if one could satisfactorily overcome these difficulties, it would remain to determine whether to subsume the scale of proportional or "presumptive"<sup>75</sup> sentences as an ingredient within a social utility (or "welfare") function or to adopt a system in which the deserts notion is represented as a constraint bounding a utilitarian objective function. The former approach requires that a schedule of equivalence be established between the goal of just deserts and that of minimizing social costs; the latter requires the arbitrary selection of maximum and minimum justly deserved sentences. Neither approach appears to lend itself

readily to scientific validation. Norval Morris sums up these

problems succinctly: "Desert is, of course, not precisely quanti-

fiable."<sup>76</sup>



#### IV. Conclusion

The formulation of sentencing guidelines provides a unique opportunity for careful scientific analysis of available evidence about the effects of alternative sanctions on the behavior of both individuals and institutions. Unlike many other areas of public policy, sentencing has only very recently received this kind of attention.<sup>77</sup>

Specific issues that are closely related to sentencing policy--such as estimates of deterrent and rehabilitative effects--have, on the other hand, been subjected to a substantial amount of scientific assessment. While the estimates of deterrence have thus far been anything but convergent<sup>78</sup>, the estimates of rehabilitation have been remarkably uniform<sup>79</sup>,

having thereby provided a basis for reassessment of the policy

of indeterminant sentencing practices. The movement away from

indeterminant sentencing, which had been stimulated to a large

extent by moral rather than scientific considerations<sup>80</sup>, was

surely accelerated by these findings.<sup>81</sup> Thus social science

appears to have already made a modest contribution to sentencing policy.

To be sure, many of the fundamental issues of sentencing do not lend themselves to scientific scrutiny. Social scientists are not specially qualified to determine, for example, the respective importance of retribution and crime control as goals of sentencing policy.

There does appear, however, to be a substantial role for the systematic assessment of relevant data to support the judiciary in making the many thousands of awesome sentencing decisions that must be made each year. Guidelines are an important, but not a necessary, ingredient in this process. Judicial receptiveness and an appreciation by social scientists for the workaday realities of the judicial environment are.

#### FOOTNOTES

1. Muller v. Oregon, 208 U.S. 412 (1908). The importance of this evidence to the outcome of Brandeis' case gave rise to a wave of similar uses of such evidence to improve the working conditions of laborers: Hawley v. Walker, 232 U.S. 718 (1914); Miller v. Wilson, 236 U.S. 373 (1915); Bosley v. McLaughlin, 236 U.S. 385 (1915); Bunting v. Oregon, 243 U.S. 426 (1917); Stettler v. O'Hara, 243 U.S. 629 (1917); and Hammer v. Dagenhart, 247 U.S. 251 (1918).
2. One of the most celebrated of all cases in which evidence from the social sciences has shaped public policy is that of Brown v. Board of Education, 347 U.S. 483 (1954). Based largely on Kenneth Clark's inferences about the effects of bigotry and segregation on the self-image of black-children, the Supreme Court ruled against a rigid tradition of school segregation. While the specific methods of carrying out the Court's ruling have been challenged, the importance of Clark's evidence, and later that of James Coleman, to the shaping of major national policy of desegregation is beyond question. J.S. Coleman, et al., Equality of Education Opportunity (1966).

3. In Williams v. Florida (399 U.S. 70 (1970)), the Supreme Court heard findings that indicated that trial outcomes are not worsened by the reduction from 12 to 6-member juries. Zeisel and Diamond, "Convincing Empirical Evidence on the Six Member Jury," 41 Univ. of Chicago Law Review 281 (1974). As a result, most of the federal district courts have reduced their civil jury requirements from 12 to 6 (*Id.* at 293).
4. Two prominent examples are People v. Collins (68 Cal. 2d 319, 438 P.2d33, 66 Cal. Rptr. 497 [1968]) and Gregg v. Georgia (428 U.S. 153 [1976]). In People v. Collins, a jury was "undoubtedly unduly impressed" (66 Cal. Rptr. at 505) by the testimony of a mathematics professor who claimed to demonstrate that the chance that a pair of codefendants other than the ones charged were the true offenders was but one in 12 million. The court agreed that this met the standard of proof beyond a reasonable doubt. This decision was reversed, however, on appeal before the California Supreme Court, after the Court heard more rigorous scientific testimony of another expert.

In Gregg v. Georgia, the Solicitor General of the United States submitted an amicus curiae brief to the Supreme Court citing statistical evidence that "when capital punishment was actually used a significant number of lives were saved . . . approximately eight murders

for each execution actually carried out" (original emphasis). Brief for the United States as Amicus Curiae at 38. While the Court ruled in favor of the Government, it was not persuaded by the statistics: "there is no convincing empirical evidence either supporting or refuting this view [that the death penalty deters]." Gregg v. Georgia at 185. Subsequently, Professor Hans Zeisel assembled evidence in refutation of that presented by the Solicitor General in the Gregg case, describing a parade of recent studies that found no deterrent effect. Zeisel concluded that the evidence against the deterrent effect is "quite sufficient . . . the request for more proof is but the expression of an unwillingness to abandon an ancient prejudice." Zeisel, The Deterrent Effect of the Death Penalty: Facts v. Faiths, 1976 Sup. Ct. Rev. 317,318.

5. Donald L. Horowitz gives a further assessment of the role of social science in judicial decision making and public policy in The Courts and Social Policy (1977). See also Sharon M. Collins, "The Use of Social Research in the Courts," in Knowledge and Policy, edited by Laurence E. Lynn (Washington: National Academy of Sciences, 1978), pp. 145-83; Gilbert Geis, "Social Science and the Law," Washburn Law Journal, vol. 1 (1962), pp. 569-86; J. Greenberg, "Social Scientists Take the Stand," Michigan Law Review, vol. 54 (1956), p. 953.

6. Collins, *id.* at 147.
7. M. Frankel, Criminal Sentences: Law without Order (New York: Hill and Wang, 1973), p. 106. Following Professor D.A. Thomas of Cambridge University (Principles of Sentencing, (1970), Judge Frankel has been a leading proponent of sentence guidelines as a means of structuring judicial discretion in the United States. See also companion article in this symposium by Judge Harold Tyler, "Sentencing Guidelines: The Control of Discretion in Federal Sentencing."
8. *Id.* at 119.
9. U.S. Senate, 95th Congress, 2nd Session, January 30, 1978.
10. *Id.* at 336, 337. The need for a sentencing commission has been identified by many others, including Judge Harold Tyler, *supra* note 7, and John Coffee, "Repressed Issues of Sentencing," Georgetown Law Journal, vol. 66 (1978), pp. 988, 1047, 1056.
11. *Id.* at 343, 344.
12. See companion article in this symposium by Harold Tyler, *supra* note 7.
13. While the absence of mandated sentencing guidelines may cause sentencing policy recommendations to go largely ignored, as we have noted, a research plan for the formulation of sentencing guidelines will nonetheless have direct relevance to sentencing policy in general.

14. It is noteworthy, however, and widely known, that different judges have had cases that have come before them reversed upon appeal at different rates. Of course, this does not prove the existence of unwarranted sentence disparity; it does suggest that all judges do not behave identically.

Stronger indications of differing sentencing philosophies between judges have been reported in the works cited in notes 15 through 20, below.

15. Hans Zeisel and Shari Diamond, "Search for Sentencing Equity: Sentence Review in Massachusetts and Connecticut," Amer. Bar Foundation Research Journal, vol. 4 (1977), p. 881.

16. Terence Dungworth, An Empirical Assessment of Sentencing Practices in the Superior Court of the District of Columbia (Washington: Inst. for Law and Social Research, forthcoming, 1979).

17. Anthony Partridge and William Eldridge, The Second Circuit Sentencing Study (1974).

18. Frederick J. Gaudet, "Individual Differences in the Sentencing Tendencies of Judges," Archives of Psychology, vol. 32 (1938), p. 11.

19. John Hogarth, Sentencing as a Human Process (Toronto: University of Toronto Press, 1972). The general line of inquiry used by Hogarth was developed earlier by Herbert A. Simon. Simon argued that the human decision process is limited by the costs of obtaining the relevant information, the failure to set forth objectives in a sufficiently



explicit manner, and by computational barriers. Simon, Administrative Behavior: A Study of Decision-Making Processes in Administrative Organizations (New York: Free Press, 1965).

20. Frank Remington and Donald J. Newman, "The Highland Park Institute on Sentencing Disparity", Federal Probation, vol. 26 (March 1962), p. 1.
21. Zumwalt, "The Anarchy of Sentencing in the Federal Courts," Judicature, vol. 57 (1973), p. 96.
22. For example, James V. Bennett, I Chose Prison (New York: Alfred Knopf, 1970), pp. 177-78; H. Jack Griswold et al., An Eye for an Eye (New York: Holt, Rinehart and Winston, 1970), p. 82.
23. Carter and Wilkins have found that probation officials vary in the manner in which they prepare presentence investigation reports, and that these differences contribute to unwarranted variation in sentences. Robert M. Carter and Leslie T. Wilkins, "Some Factors in Sentencing Policy," Journal of Criminal Law, Criminology and Police Science, no. 584 (1967), pp. 503-14.
24. Walter C. Bailey, "Correctional Outcome: An Evaluation of 100 Reports," Journal of Criminal Law, Criminology and Police Science, vol. 57 (1966), p. 158. Bailey evaluated 22 studies that used experimental designs, 26 that he classed as "systematic," and 52 that were less rigorously designed.

25. Robert Martinson, et al., The Effectiveness of Correctional Treatment: A Survey of Treatment Evaluation Studies (New York: Praeger, 1975). Soon afterward, Fishman evaluated 18 rehabilitation and diversion projects, concluding: "The quantity, quality, types, and mix of services provided by projects to their clients--as well as their staff-client ratios, proportions of paraprofessional staff, per capita funding, and other project characteristics--had no apparent effect on the projects' ability to influence the arrest recidivism of their clients." Fishman, "An Evaluation of Eighteen Projects Providing Rehabilitation and Diversion Services," in Crime and Justice: The Criminal Under Restraint, edited by L. Radzinowicz and M. Wolfgang (New York: Basic Books, 1977), vol. 3, p. 66.
26. Judge Harold Tyler has similarly concluded: "We must cease pretending . . . that in the present state of knowledge of mankind, rehabilitation is a legitimate goal or purpose of punishment." Tyler, *supra* note 7, p. . . .
27. Frankel, *supra* note 7, p. 98. The editors of the Yale Law Journal have added that even if we knew how to make rehabilitation work, "the present state of the social sciences is not sufficiently advanced to permit precise decisions as to the best time to release an incarcerated offender in order to promote rehabilitation." W. J. Genego, P.O. Goldberger, and V.C. Jackson, "Parole Release Decisionmaking and the Sentencing Process," Yale Law Journal, vol. 84 (1975) p. 848.

28. Alan M. Dershowitz, "Criminal Sentencing in the United States: An Historical and Conceptual Overview," Annals of the American Academy of Political and Social Science (1976), p. 130. Jessica Mitford's language is much sharper: "The untrammelled discretion now invested in the authorities via indeterminate sentences should be eliminated." Mitford, Kind and Usual Punishment (New York: Alfred A. Knopf, 1973), p. 294.
29. The conspicuously public nature of punishment in imperial Rome and medieval Europe suggests a very early belief in the theory of deterrence. This theory was formally articulated in the 18th century by Cesare Beccaria and Jeremy Bentham. Beccaria, Dei Delitti e Delle Pene (1764); Bentham, An Introduction to the Principles of Morals and Legislation (1789).
30. Studies of the deterrent effect of capital punishment by Thorsten Sellin and Karl Schuessler were among the first studies on deterrence to be distinctly empirical in nature. Sellin, The Death Penalty (1959); Schuessler, "The Deterrent Influence of the Death Penalty," Annals of the American Academy of Political and Social Science, 284 (November 1952), pp. 54-62.
31. Two such reviews are by Gordon Tullock and Daniel Nagin. Tullock, "Does Punishment Deter Crime?" The Public Interest, no. 36 (Summer 1974), pp. 103-11; Nagin, "General Deterrence: A Review of the Empirical Evidence," in Deterrence and Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates, edited by A. Blumstein, J. Cohen, and D. Nagin

(Washington: National Academy of Sciences, 1978), pp. 95-139.

32. Studies of the variation in factors of interest across geographical units are commonly referred to as "cross-sectional" studies. Examples in the study of deterrence are Ehrlich, "Participation in Illegitimate Activities: A Theoretical and Empirical Investigation," Journal of Political Economy, vol. 81 (1973) pp. 521-65; Forst, "Participation in Illegitimate Activities: Further Empirical Findings," Policy Analysis, vol. 2 (1976), pp. 477-92; and J.Q. Wilson and B. Boland, "Crime," in The Urban Predicament (Washington: The Urban Institute, 1976), pp. 179-230.
33. The study of variation in factors over successive time periods is commonly referred to as "time series" analysis. Examples in the study of deterrence are Phillips and Votey, "An Economic Analysis of the Deterrent Effect of Law Enforcement on Criminal Activities," Journal of Criminal Law, Criminology, and Police Science, vol. 63 (1972), pp. 336-42; Ehrlich, "The Deterrent Effect of Capital Punishment: A Question of Life and Death," Amer. Economic Review, vol. 65 (1975), pp. 397-417; and Klein, et al., "The Deterrent Effect of Capital Punishment: An Assessment of the Estimates," in Deterrence and Incapacitation, supra note 31, pp. 336-60.
34. For example, the editors of the Wall Street Journal, citing Tullock's work, supra note 31, state that such studies "certainly suggest that society could profitably concentrate on convicting and imprisoning criminals at a

much higher rate." (Editorial entitled "Crime and Punishment," September 17, 1974, p. 22.) A more celebrated example is the Solicitor General of the United States having introduced a study by Isaac Ehrlich, *ibid.*, as evidence in briefs to the Supreme Court that argue in favor of the use of the death penalty.

35. Incapacitation is described in the text accompanying notes 41-45, *infra*.
36. One could in principle estimate the general deterrent effect by estimating the total effect of a sanction on a particular crime rate and subtracting the incapacitation and special deterrent (or rehabilitation) effects. In our opinion, the existing estimates of the total effects, and of the incapacitation and special deterrence effects, are not sufficiently reliable to permit one to place much faith in such a construction of the estimate of general deterrence. It remains noteworthy, in any event, that many of the reported estimates of "deterrence" are really estimates that confound general deterrence, special deterrence, and incapacitation. A similar point is made by Nagin, *supra* note 31, at 129-35.
37. For example, an increase in the crime rate can be expected to draw on the existing resources of the police, prosecutor, and court, thereby reducing the likelihood that a

given offense will result in arrest, prosecution and conviction. To the extent that this is true, we will observe a negative correlation between crime rates and sanction levels that does not reflect the deterrent effect of the certainty of punishment.

38. An increase in the number of offenses can be expected to increase the number of incarcerations (although not the incarceration rate, following the discussion of note 37). To the degree that prison capacity is constant, an increase in the number of incarcerations will correspond to a decline in the average term of incarceration. Thus an increase in crime will tend to cause a decline in the term of incarceration, so that the two will be negatively correlated not because of the deterrent effect of the severity of punishment.

39. It is important to note that the numerator of the crime rate is identical to the denominator of the probability that an offense will result in punishment. To the extent that offenses are underreported more in some places (or at some times, in the case of time series analysis) than in others, the crime rate will be artificially lower and the probability of punishment artificially higher than for observations with less underreporting. Thus, variation in crime reporting rates will produce an artificial negative correlation between the crime rate and the certainty of punishment.

40. This conclusion is consistent with that of the National Academy of Sciences Panel on Research on Deterrent and Incapacitative Effects: "The major challenge for future research is to estimate the magnitude of the effects of different sanctions on various crime types, an issue on which none of the evidence available thus far provides very useful guidance." Deterrence and Incapacitation, supra note 32, p. 7.

Perhaps a more fundamental objection to deterrence as a basis for sentencing policy is the ethical premise that no offender should be punished so that other potential offenders are deterred. See H.L.A. Hart, Punishment and Responsibility: Essays in the Philosophy of Law (Oxford University Press, 1967); H. L. Packer, The Limits of the Criminal Sanction (Stanford University Press, 1968); and J. Rawls, A Theory of Justice (Cambridge: Harvard University Press, 1971).

41. Interest in this potentially important area of inquiry has been more recent than in rehabilitation or deterrence. A widely cited study that developed much of the basis for subsequent models of the incapacitation effect is that of B. Avi-Itzhak and R. Shinnar, "Quantitative Models in Crime Control," Journal of Criminal Justice, vol. 1 (1973), pp. 185-217. An in-depth review of the incapacitation literature is given in Jacqueline Cohen, "The

Incapacitative Effect of Imprisonment: A Critical Review of the Literature," in Deterrence and Incapacitation, supra note 32, pp. 187-243.

42. The Rand Corporation appears to have broken important ground in obtaining such responses. One technique used by Rand in conducting this research involves the employment of former inmates as interviewers. Joan Petersilia, Peter Greenwood, Marvin Lavin, Criminal Careers of Habitual Felons (Santa Monica: Rand Corporation, August 1977); Harriet Stambul, Mark Peterson, Suzanne Polich, Doing Crime: A Survey of California Prison Inmates (Santa Monica: Rand, July 1977).
43. This basic approach has been used by Clarke and by Greenberg, although not by crime category and without precisely accurate adjustments for time on the "street" for convicted offenders. S. Clarke, "Getting 'em out of Circulation: Does Incarceration of Juvenile Offenders Reduce Crime?" Journal of Criminal Law and Criminology, vol. 65 (1974), pp. 528-35; D. Greenberg, "The Incapacitative Effect of Imprisonment: Some Estimates," Law and Society Review, vol. 9 (1975), pp. 541-80.
44. This is discussed in Wilson and Boland, supra note 32, p. 212.
45. See J. Q. Wilson and B. Boland, "Age, Crime, and Punishment," The Public Interest, no. 51 (Spring 1978), pp. 22-34.
46. A similar point is made by Andrew von Hirsch, Doing Justice: The Choice of Punishments (New York: Hill and Wang, 1976), pp. 87-88. See also note 40, supra. Such errors in



classifying offenders as dangerous have, in fact, been documented. See John Monahan, "The Prediction of Violent Criminal Behavior: A Methodological Critique and Prospectus," in *Deterrence and Incapacitation*, supra note 31, pp. 244-69.

47. For example, Van Dine, et al., have estimated that violent offenders with prior convictions commit less than two violent crimes per year. Van Dine, S.S. Dinitz, and J. Conrad, "The Incapacitation of the Dangerous Offender: A Statistical Experiment," Journal of Research in Crime and Delinquency (January 1977), pp. 22-34. On the other hand, Petersilia, et al., have found that a sample of the 49 more serious habitual offenders had reported committing over 10,500 serious crimes--214 per offender--including 2,331 burglaries, 855 robberies, and 993 grand larcenies. J. Petersilia, P.W. Greenwood, and M. Lavin, Criminal Careers of Habitual Offenders (Santa Monica: Rand Corporation, August 1977), p. 18.

Obviously, the number of serious offenses committed per year by violent offenders depends on how one defines the relevant populations of offenses and offenders, and how one estimates the numbers of each. Some violent offenders are, in any case, clearly more recidivistic than others. For a lucid discussion of problems that have been encountered in estimating incapacitation effects, see Barbara Boland, "Incapacitation of the Dangerous Offender: The Arithmetic Is Not So Simple," Journal of Research in Crime and Delinquency (January 1978, pp. 126-29.

48. The discussion of this section grows out of the technical proposal entitled "Study for the Formulation of Sentencing Guidelines for Federal Offenses," revised May 11, 1978, prepared in response to U.S. Department of Justice request for proposals no. DJ-N-78-5.
49. Due to ethical barriers that preclude the use of controlled experimentation to analyze the effects of alternative sentencing decisions on subsequent defendant behavior, it has become a standard, widely accepted practice to draw inferences about such effects using multivariate statistical procedures that provide substitutes for the pure experimental setting. For a general discussion, see Arthur S. Goldberger and Otis O. Duncan, Structural Equation Models in the Social Sciences (New York: Seminar Press, 1973). For an example of the use of multivariate statistical analysis in the study of recidivism, see Kristen M. Williams, The Scope and Prediction of Recidivism (Washington: Institute for Law and Social Research), forthcoming 1979.
50. For a discussion of precursors to this phase of the study, see note 42, supra, and accompanying text.
51. Models of research in the assessment of the effect of sentencing policy on prison populations are provided in papers by Nagin and Blumstein. D. Nagin, "The Impact of Flat-Time Sentencing Legislation on Prison Population and Sentence Length: A California Case Study," Duke University

- research paper (Institute of Policy Sciences and Public Affairs), 1977. A. Blumstein, ...
52. J.S. Mill, Utilitarianism (1861).
53. J. Bentham, An Introduction to the Principles of Morals and Legislation (1789).
54. H.L.A. Hart, Punishment and Responsibility: Essays in the Philosophy of Law (Oxford Univ. Press, 1967).
55. J. Rawls, A Theory of Justice (Harvard Univ. Press, 1971).
56. H.L. Packer, The Limits of the Criminal Sanction (Stanford University Press, 1968).
57. A. von Hirsch, Doing Justice: The Choice of Punishments (New York: Hill and Wang, 1976).
58. D. Gottfredson, L.T. Wilkins, and P.B. Hoffman, Guidelines for Parole and Sentencing (Lexington: D.C. Heath, 1978); also, L.T. Wilkins, J.M. Kress, D.M. Gottfredson, J.C. Calpin, and A.M. Gelman, Sentencing Guidelines: Structuring Judicial Discretion (Washington: U.S. Govt. Printing Office, 1978).
59. Certain characteristics of the offender, such as race, are neither relevant nor morally justifiable as determinants of the sentence, even though they may turn out to be statistically associated with sentences. In such cases, these factors will be included in the analysis (to prevent the remaining factors from serving as statistical substitutes for them), but will be removed for the construction of recommended guidelines. The survey of judges is designed to include

questions that draw out opinions about factors that are not morally justifiable as sentence determinants.

60. A case for shifting away from historical norms is offered by Coffee. He argues, essentially, that previous sentencing practices may have been wrong, that public tastes for punishment change, and that the criminal justice system itself changes. John C. Coffee, Jr., "The Repressed Issues of Sentencing: Accountability, Predictability, and Equality in the Era of the Sentencing Commission," Georgetown Law Journal, vol. 66 (April 1978), pp. 1034-35.
- 60a. For example, S.1437 required that average sentences imposed under a guidelines system could not exceed current average sentences. See note 9, *supra*, Section \_\_\_\_.
61. See, for example, Richard A. Musgrave, Theory of Public Finance: A Study in Public Economy (New York: McGraw-Hill, 1959); Carl S. Shoup, Public Finance (Chicago: Aldine, 1969), pp. 115-18; Gary S. Becker, "Crime and Punishment: An Economic Approach," Journal of Political Economy, vol. 76 (1968), pp. 526-36. We are indebted also to Philip Cook for stimulating much of our thinking in this section by sharing with us his paper "Preliminary Thoughts on a Utilitarian Sentencing Structure," unpublished manuscript (Duke University, March 1978).
62. This can be expressed more explicitly as follows: Letting  $S_i$  denote the sentence for category  $i$ ;  $N_i$  denote the number of offenses in that category;  $CA_i$  and  $CC_i$  denote costs attributable respectively to each arrest and conviction;  $CP_i$  denote the cost of each offense in category  $i$  incurred by the

private sector; CI denote the cost of one year of imprisonment;  $PA_i$ ,  $PC_i$ , and  $PI_i$  denote the respective probabilities of arrest, conviction, and imprisonment--we wish to find  $S_i^*$ , the sentence that minimizes  $TSC_i$  (the total social cost associated with category i), where

$$TSC_i = (CA_i)(PA_i)(N_i) + (CC_i)(PC_i)(N_i) + (CI)(PI_i)(S_i)(N_i) + (CP_i)(N_i),$$

given the deterrent and incapacitative effects

$$N_i = f_i(PA_i, PC_i, PI_i, S_i, \dots).$$

The optimum sentence in this system can be determined by setting  $TSC_i$  equal to zero and differentiating it with respect to  $S_i$ .

63. Costs of crime to the private sector need not be estimated by adding together separate estimates of property loss, injury, cost of fear, and so on. An alternative procedure is to assume that the amount that people are willing to pay to reduce crime by, say, ten percent approximates the aggregate of these costs. Recognizing the difficulties in estimating the cost of fear, which may be the largest single element of private costs, we plan to ask the general public questions about willingness to reduce crime.
64. As a practical matter, this model may encounter obstacles to implementation. In particular, it may provoke some people to object on grounds that questions of justice in

general and punishment in particular transcend cost considerations. The tension between resource constraints and the goals of justice is a theme that emerges frequently in debates over plea bargaining, speedy trial legislation, the quality of counsel, and related topics.

In addition, the utilitarian logic ignores distributional effects. For example, it is questionable to assume that \$1,000 stolen from a millionaire is as costly to society as \$1,000 stolen from a poor person.

65. See note 40, *supra*, and accompanying text.

66. Von Hirsch, *supra* note 57, at 62-64.

67. *Id.*, at 27-31.

68. *Id.*, at xxxviii, 50-54.

69. Immanuel Kant, Metaphysical Elements of Justice (New York: Bobbs-Merrill, 1965), p. 101.

70. Von Hirsch, *supra* note 57, at 66.

71. *Id.*, at 66-83, 89-94. See also John Kleinig, Punishment and Desert (Hague: Martinez Nijhoff, 1973).

Professor von Hirsch's work has, however, not gone uncriticized. Leslie Wilkins has said of the just deserts model: "It seems that we have rediscovered 'sin' in the absence of a better alternative" (quote from an appendix to Doing Justice, *id.*, p. 178). Coffee has criticized the model because of its tautological justification, its potential for harshness, difficulties in defining culpability, and failure of the concept of proportionality of punishment to

manifest in practice. (Coffee, *supra* note 60, at 1077, 1080.) The model has been criticized also by Gardner, "The Renaissance of Retribution--An Examination of Doing Justice," Wisconsin Law Review (1976), p. 781, and by Arthur G. LeFrancois, "An Examination of a Desert-Based Presumptive Sentence Schedule," Journal of Criminal Justice, vol. 6 (Spring 1978), pp. 35-46.

72. The basic original work on scaling of crime seriousness by Thorsten Sellin and Marvin Wolfgang (The Measurement of Delinquency, New York: Wiley, 1964) has been found to be remarkably robust when tested with different populations (including college students, judges, police officers, prison inmates, prosecutors, and the general public) and in different countries. See Charles Wellford and M. Wiatrowski, "On the Measurement of Delinquency," Journal of Criminal Law and Criminology, vol. 66 (1975); Robert M. Figlio, "The Seriousness of Offenses: An Evaluation of Offenders and Non-Offenders," Journal of Criminal Law and Criminology, vol. 66 (1975), pp. 189-200; Jeffrey A. Roth, "Prosecutor Perceptions of Crime Seriousness," Journal of Criminal Law and Criminology, vol. 69 (1978), pp. 232-42; Robert M. Figlio, "The National Survey of Crime Severity--Some General Findings," unpublished manuscript, University of Pennsylvania (1978).

73. The scaling of sentence severity requires the construction of a single index that combines both term and type of incarceration, fines, and term and conditions of probation. The difficulties in this are legion. Different populations are likely to have different views about the relative harshness of each component of the index. Assuming that convicted offenders comprise the relevant population, more affluent white collar offenders could be expected to have a greater preference for fines over incarceration than other offenders. Moreover, recalling the Uncle Remus fable of the briar patch, it is not apparent that offenders are likely to be perfectly candid about their perceptions of preferences for alternative punishments.
74. An alternative approach would be to survey relevant populations about just punishments for various offenses, or about maximum and minimum sentences that appear to suit these offenses. Selecting the relevant populations and separating utilitarian from desert considerations would, of course, not be an easy task.
75. Von Hirsch, *supra* note 57, at 99.
76. N. Morris, The Future of Imprisonment (Chicago: University of Chicago Press, 1974).



77. See notes 15-23, *supra*, and accompanying text. An important exception is *Gaudet*, *supra* note 18.
78. See note 40, *supra*, and accompanying text.
79. See notes 24-26, *supra*, and accompanying text.
80. For example, see *Mitford*, *supra* note 28. And, according to Frankel, the powers associated with the fashioning of an indeterminant sentence are "terrifying and intolerable for a society that professes devotion to the rule of law." Frankel, *supra* note 7, at 5.
81. See notes 27-28 and accompanying text.

Assac. Dir.

<sup>1st</sup> Dep. AD

Dep. AD

Asst. Dir.:

Adm. Servs. \_\_\_\_\_

Crim. Inv. \_\_\_\_\_

Ident. \_\_\_\_\_

Intell. \_\_\_\_\_

Laboratory \_\_\_\_\_

Legal Coun. \_\_\_\_\_

Plan. & Insp. \_\_\_\_\_

Rec. Mgnt. \_\_\_\_\_

Tech. Servs. \_\_\_\_\_

Training \_\_\_\_\_

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Director's Sec'y \_\_\_\_\_

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## memorandum

January 24, 1979

William P. Tyson, Acting Director  
Executive Office for U.S. Attorneys

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SUBJECT: Information Requirements Analysis for a U.S. Attorney  
Caseload/Management System

See Attached List of Addressees

~~FEDERAL GOVERNMENT~~

The Executive Office for U.S. Attorneys (EOUSA) is in the process of developing a replacement for the U.S. Attorneys' automated Docket and Reporting System. EOUSA has contracted with the Institute for Law and Social Research (INSLAW) to perform an information requirements' analysis as part of this project. This analysis will define the kinds of information that should be available to meet the internal management needs of the 95 U.S. Attorneys' offices, to satisfy the information needs of EOUSA and other organizations in the Department of Justice, and to provide for needs of other federal agencies or organizations that interact with U.S. Attorney offices.

A project team consisting of staff from EOUSA and INSLAW will be conducting interviews with senior management officials in these organizations in the next several weeks to identify what (if any) information concerning U.S. Attorney activities is used by these organizations. We are including your organization in this project because your operations are often involved with those of the U.S. Attorneys.

I would appreciate it if you would arrange for the appropriate officials in your organization to meet with this project team to review how your organization uses or needs information concerning U.S. Attorney activities. The team would also like to receive suggestions about improvements in data concerning either individual cases or overall statistics and trends in U.S. Attorney litigation. Ms.

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[redacted] a member of my staff [redacted] will be contacting your office in the near future to arrange a time for an interview unless she is notified of another contact in your organization.

Thank you for your support and assistance in this effort, which I hope may benefit your organization as well as ours.

REC-70

EX-124

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Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

OPTIONAL FORM NO. 10  
(REV. 7-76)  
GSA FPMR (41 CFR) 101-11.6  
5010-112

JUL 10 1979

Per SA [redacted] has been advised we are acting on the request 1/31/79



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Addressees

Split Section: End of Section 01.1

Mr. Peter B. Bensinger, Administrator  
Drug Enforcement Administration

Mr. Norman A. Carlson, Director  
Bureau of Prisons

Mr. Leonel J. Castillo, Commissioner  
Immigration and Naturalization Service

Mr. William H. Webster, Director  
Federal Bureau of Investigation

Mr. William E. Hall, Director  
United States Marshals Service

Mr. Jerome Kurta, Commissioner  
Internal Revenue Service

Mr. Elmer B. Staats  
Comptroller of the United States  
General Accounting Office

Mr. William E. Foley, Director  
Administrative Office of the U.S. Courts

Mr. John G. Krogman, Director  
Bureau of Alcohol, Tobacco and Firearms

Mr. James T. McIntyre, Jr., Director  
Office of Management and Budget